

5.—*Descriptions of Fishes from the Coast of Natal* (Part II.). By
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THE following is a further contribution to the description of a collection of fishes from Natal. As in Part I., the older classification and some of the older names are retained for local convenience and easy comparison with such readily accessible works of reference as Day's "Fishes of India."

FAMILY PERCIDÆ.

LUTIANUS JOHNI, Bl.

Teeth, curved canines on premaxillaries, an outer row of canines on each jaw, a chevron-shaped patch of small villiform teeth on vomer, a narrow band on palatines, an elongated triangular patch on tongue. Depth of body $2\frac{3}{5}$ times in total length excluding caudal, length of head 3 times. Snout $1\frac{1}{5}$ times diameter of eye, which equals interorbital width and is $3\frac{1}{2}$ times in length of head. Depth of preorbital equals $\frac{3}{4}$ diameter of eye; maxillary reaches to vertical of middle of orbits; vertical limb of preoperculum finely serrated, more coarsely so at angle, which is rounded and slightly produced, lower limb with a few coarse serrations.

Dorsal x 13; spines moderately strong, 3rd and 4th about equal and nearly $\frac{2}{5}$ length of head, succeeding spines decrease to the last, which is slightly more than $\frac{1}{2}$ length of the 4th; soft portion of fin rounded, the longest rays about $\frac{1}{5}$ height of longest spine and $\frac{1}{2}$ the length of base of soft portion. Pectorals falcate, nearly as long as head. Ventrals nearly $\frac{2}{3}$ length of head. Anal iii 8; 2nd spine strongest, about same length as 3rd and nearly $\frac{3}{4}$ height of longest spine of dorsal; longest rays slightly higher than longest spine of dorsal and $\frac{1}{4}$ higher than soft dorsal. Caudal slightly forked, rays divided, a little more than $\frac{1}{3}$ length of head. Scales cycloid, ex-

tending over opercles and inter- and pre-opercles Lat. l. 48, lat. tr. $\frac{6}{17 \text{ or } 18}$.

Colour (of preserved specimens), brown above, light-coloured below, with a dark blotch on lateral line below origin of soft dorsal.

Two specimens, 65 mm. and 178 mm. in length respectively, from Mr. Romer Robinson, Natal.

KUHLIA RUPESTRIS, Lacép.

Depth of body a little more than $2\frac{1}{3}$ times in total length excluding caudal, length of head 3 times. Snout slightly less than diameter of eye, which equals interorbital width and is $3\frac{1}{3}$ times in length of head. Cleft of mouth oblique, lower jaw projects beyond upper; maxillary reaches to vertical of middle of orbits, the width of its distal extremity equals $\frac{2}{3}$ diameter of eye; top of head rugose, cheeks and opercles with large ciliated scales; lower border of preorbital finely serrated; preoperculum very finely denticulate; 2 strong opercular spines, the lower most developed; 17 gill-rakers on lower part of anterior arch.

Dorsal x 11; originating behind axilla and above origin of ventrals; 4th spine longest, a little more than $\frac{2}{5}$ length of head, succeeding spines decrease in length to 10th, which is $\frac{2}{3}$ height of longest, last spine much longer than penultimate and nearly as high as 3rd; anterior soft rays $1\frac{1}{3}$ times height of longest spine, shortening posteriorly to $\frac{1}{2}$ that height. Pectorals $\frac{2}{3}$ length of head. Ventrals slightly longer than pectorals and reaching to anus. Anal iii 10, longer than its distance from caudal; 3rd spine longest, about same height as last spine of dorsal and about $\frac{2}{3}$ height of longest soft rays. Caudal emarginate, nearly as long as head, middle rays about $\frac{1}{3}$ length of outer, lobes obtusely pointed. Scales comparatively large, feebly ctenoid. Sc. $44\frac{5}{10}$.

Colour (of preserved specimen), dark brown above, lighter below, where each scale has a dark spot at its base; anal with black spots.

One specimen, 173 mm. in length, from Mr. Romer Robinson, Natal; taken in tidal waters in Umbilo River, Durban.

EPINEPHELUS SONNERATI, C. and V.

(Scarlet Rock-cod.)

Teeth in rather broad bands, in 3 series on sides of mandibles; canines moderate. Depth of body a little greater than length of

head and $2\frac{1}{2}$ to $2\frac{3}{5}$ times in total length excluding caudal. Snout twice diameter of eye, which is $6\frac{2}{5}$ to 7 times in length of head and equals the interorbital width. Lower jaw projecting beyond upper; maxillary reaches to vertical of posterior border of eye, the width of its distal extremity equals or slightly exceeds diameter of eye; preoperculum feebly serrated, slightly emarginate above angle, which is rounded; middle opercular spine nearer lower than upper, lower scarcely further back than upper, opercular flap obtusely pointed; head and part of maxillary covered with cycloid scales; gill-rakers 12 and 5 rudiments on lower part of anterior arch, the longest about as long as gill-fringes.

Dorsal ix 15; originating slightly behind base of pectorals, spines strong; 3rd spine longer than 1st or 2nd, about same height as succeeding spines, $\frac{1}{4}$ to $\frac{3}{10}$ length of head and considerably shorter than posterior rays, the longest of which is $\frac{2}{5}$ to $\frac{1}{2}$ length of head. Pectorals $\frac{2}{3}$ to $\frac{2}{3}$ length of head. Ventrals scarcely shorter than pectorals and reaching to about the anus. Anal iii 9; 3rd spine slightly longer than 2nd, a little higher than longest spine of dorsal and $\frac{2}{3}$ height of longest soft rays; both soft dorsal and anal are rounded. Caudal rounded, $\frac{3}{5}$ to $\frac{2}{3}$ length of head. Scales on body strongly ciliated, those on belly cycloid. Sc. 110–115 $\frac{1}{4}$ to $\frac{1}{2}$; lat. l. 68.

Colour when fresh, scarlet, paired and unpaired fins edged with black; becomes whitish or grey in preservative with a trace of black edges to fins. No network of colour on the head (described and figured by some authors) was observed.

Two specimens, one 270 mm. in length from Durban Museum, the other 303 mm. in length from Mr. Romer Robinson, Natal.

EPINEPHELUS MINIATUS, Forsk.

(Red Spotted Rock-cod.)

Teeth, 2 or 3 series on the sides of the mandibles; canines moderate. Depth of body about 3 times in total length excluding caudal, length of head $2\frac{3}{4}$ to $2\frac{1}{2}$ times. Snout about $1\frac{3}{5}$ times diameter of eye, which is small, equals or is slightly less than interorbital width and $5\frac{3}{5}$ to nearly 6 times in length of head; lower jaw projects beyond upper, chin prominent; maxillary reaches to below posterior third of eye, width of its distal extremity about equals diameter of eye; preoperculum finely serrated on lower half of vertical border, the serræ scarcely enlarged at the angle, which is rounded; middle opercular spine nearer lower than upper, opercular flap obtusely pointed, the upper border strongly curved; head covered

with cycloid scales, snout and maxillary partially scaled, the scales on maxillary being $\frac{1}{4}$ the length of those on cheek.

Dorsal ix 15-16; originating above base of pectorals; spines strong, increasing in length to 3rd, which is $\frac{3}{10}$ length of head and considerably shorter than posterior soft rays, which are about $\frac{2}{3}$ length of head. Pectorals $\frac{7}{10}$ to $\frac{3}{4}$ length of head. Ventrals $\frac{1}{2}$ to $\frac{3}{5}$ length of head. Anal iii 9; 2nd and 3rd spines about equal, slightly longer than longest dorsal spine; soft rays longer than those of soft dorsal and a little more than $\frac{1}{2}$ length of head. Caudal rounded, middle rays longest, $\frac{3}{5}$ length of head. Scales $100\frac{1}{4}$ (circa), lat. l. 50 (circa); scales of posterior half of body ciliated.

Colour (when fresh), very brilliant. The ground colour is orange with numerous blue spots on head, body, and fins; pectorals are golden at extremity, shading into orange at base, where there are two blue spots; dorsal scarlet and spotted at upper edge; caudal closely spotted; ventrals crimson with upper edge blue, dark orange spotted and edged below with blue. In the preserved state the spots only remain and are of a dark brown colour.

Two specimens, 230 mm. and 200 mm. in length respectively, from Mr. Romer Robinson, Natal, who kindly supplies a note of the colour.

EPINEPHELUS ALBOMARGINATUS, Blgr.

Teeth, in narrow bands, in 2 series on sides of mandibles; canines strong. Depth of body equals length of head and about 3 times in total length excluding caudal. Snout as long as diameter of eye, which is 4 times in length of head; interorbital width 5 times in length of head; lower jaw projecting beyond upper; maxillary reaches vertical of posterior border of eye, width of its distal extremity $\frac{3}{5}$ diameter of eye; preoperculum finely serrated, emarginate above angle, which is rounded and has 3 or 4 enlarged serræ; middle opercular spine slightly nearer lower than upper, lower spine further back than upper, opercular flap pointed; head nearly entirely covered with cycloid scales, maxillary naked. Gill-rakers 13 to 15 on lower part of anterior arch, the longest as long as the gill-fringes.

Dorsal xi 14; originating above base of pectorals; 3rd to 5th spines longest, about $\frac{1}{3}$ length of head, shorter than soft rays. Pectorals $\frac{3}{5}$ length of head, scarcely longer than ventrals. Anal iii 8; 3rd spine longest, $\frac{2}{7}$ length of head; longest soft rays about $\frac{1}{2}$ length of head. Caudal rounded, subtruncate, $\frac{3}{5}$ length of head. Scales ciliated, 112 (circa); lat. l. 63.

Colour (of preserved specimen), brown, covered with numerous small round blackish spots; belly lighter, without spots; pectorals light brown; dorsal, anal and caudal edged with white, with very faint black spots.

One specimen, 211 mm. in length, from Durban Museum.

Another specimen (320 mm. in length) agrees very closely with Boulenger's description of this species; it was procured by the ss. *Pieter Faure* in the large trawl, 50 fms. sand and mud, Tugela River mouth N. $19\frac{1}{2}$ miles, and seems to belong to the same species. It differs slightly in that the eye is comparatively smaller, the opercular spines are about equidistant, the ventrals are much shorter than the pectorals (being 54 mm. and 73 mm. respectively), and the length of the head is decidedly greater than the depth of the body; the colouring is the same.

EPINEPHELUS MORRHUA, C. and V.

Teeth, in narrow bands, in 2 series on the sides of the mandibles; canines moderately strong. Depth of body 3 to $3\frac{1}{8}$ times in total length excluding caudal, length of head $2\frac{3}{5}$ to $2\frac{3}{4}$ times. Snout $1\frac{1}{4}$ to $1\frac{1}{3}$ times diameter of eye, which is $4\frac{1}{5}$ times in length of head; inter-orbital width $5\frac{2}{5}$ to $5\frac{4}{5}$ times in length of head; lower jaw projecting beyond upper; maxillary reaches to vertical of posterior border of eye, the width of its distal extremity $\frac{3}{5}$ to $\frac{7}{10}$ diameter of eye; pre-operculum serrated, slightly emarginate above angle, which is slightly produced and armed with 3 or 4 strong spines; middle opercular spine nearer lower than upper, lower much further back than upper, opercular flap pointed; head nearly entirely covered with cycloid scales, maxillary naked; gill-rakers 15 to 16 on lower part of anterior arch, the longest as long as the gill-fringes.

Dorsal xi 14; originates above base of pectorals; 3rd and 4th spines longest and about $\frac{1}{3}$ length of head; last spine $\frac{1}{4}$ to $\frac{3}{10}$ length of head; longest soft rays a little longer than longest spine. Pectorals $\frac{3}{5}$ to $\frac{2}{3}$ length of head. Ventrals $\frac{1}{2}$ length of head, not reaching anus. Anal iii 8; 2nd and 3rd spines about equal in length, $\frac{1}{4}$ to $\frac{3}{10}$ length of head and $\frac{7}{10}$ height of longest soft rays. Caudal truncate, $\frac{1}{2}$ to $\frac{3}{5}$ length of head. Scales on body ciliated. Lat. l. 68-78, sc. 110-112 $\frac{1}{2}$.

Colour (of preserved specimens), greyish brown, soft dorsal and caudal with dark spots in one or more rows.

Two specimens, 367 mm. and 276 mm. in length respectively, procured by ss. *Pieter Faure* in large trawl, 46-55 fms., mud, Tugela River mouth, N. by W. 18 miles.

EPINEPHELUS MODESTUS, n. sp.

Teeth, in narrow bands, in 2 series on sides of mandibles; canines small. Depth of body $2\frac{1}{3}$ times in total length excluding caudal, length of head $2\frac{2}{3}$ times. Snout $1\frac{2}{3}$ times diameter of eye, which equals interorbital width and is 5 times in length of head; posterior nostril large; lower jaw projecting beyond upper; maxillary reaches to vertical of posterior margin of eye, the width of its distal extremity is a little more than $\frac{1}{3}$ diameter of eye; vertical limb of preoperculum serrated, the serræ being coarser at angle and the lower pointing downwards; middle opercular spine slightly nearer lower than upper, the lower feeble and not so far back as upper; opercular flap pointed, upper border somewhat convex; head nearly entirely covered with cycloid scales, a band of small scales on maxillary. (Gill-rakers not present in specimen.)

Dorsal xi 14; originating a little in advance of base of pectorals; 3rd spine longest, about $\frac{2}{3}$ length of head and as long as longest soft rays, last spine $\frac{3}{10}$ length of head. Pectorals $\frac{2}{3}$ length of head. Ventrals $\frac{1}{2}$ length of head, nearly reaching to anus. Anal iii 9; 2nd spine a little shorter than 3rd, $\frac{1}{4}$ length of head and a little more than $\frac{1}{2}$ length of longest soft rays. Caudal truncate, nearly $\frac{2}{3}$ length of head. Scales on body ciliated. Sc. $118\frac{1}{2}$, lat. l. 68.

Colour (of preserved and fresh specimen), greyish brown, darker above.

One specimen, 281 mm. in length, from the Durban market.

It is near *E. niveatus*, from which, however, it is apparently different.

EPINEPHELUS ANDERSONI, Blgr.

Teeth, in 2 series on sides of mandibles; canines feeble. Depth of body $3\frac{1}{4}$ to about 4 times in total length excluding caudal, length of head 3 times. Snout $1\frac{1}{4}$ to $1\frac{1}{3}$ times diameter of eye, which is $5\frac{1}{3}$ to 6 times in length of head, and equals or slightly exceeds interorbital width; lower jaw projects beyond upper, maxillary reaches beyond vertical of posterior margin of eye, the width of its distal extremity $\frac{2}{3}$ to $\frac{3}{4}$ diameter of eye; preopercular border serrated, the serræ at angle enlarged; lower opercular spine nearer median and further back than upper, opercular flap pointed; head nearly covered with cycloid scales, maxillary naked; gill-rakers moderate, 16 on lower part of anterior arch.

Dorsal xi 15; originates above base of pectorals; 3rd to 6th spines longest and about $\frac{1}{3}$ length of head, last spine $\frac{1}{4}$ to $\frac{1}{3}$ length of head;

longest soft rays about $\frac{1}{2}$ length of head. Pectorals $\frac{3}{5}$ to $\frac{2}{3}$ length of head. Ventrals $\frac{2}{3}$ to $\frac{1}{2}$ length of head. Anal iii 8; 2nd spine a little shorter than 3rd, which is $\frac{1}{4}$ to $\frac{3}{10}$ length of head; longest soft rays $\frac{2}{5}$ to $\frac{1}{2}$ length of head. Caudal rounded, $\frac{2}{3}$ to $\frac{7}{10}$ length of head. Scales on body feebly ciliated. Lat. l. 82 (circa), sc. 105 (circa) $\frac{14-15}{32-34}$.

Colour (of preserved specimens), the two largest greyish brown, the smaller ones dark brown; with large round black spots in five or six longitudinal rows on each side, two oblique dark streaks from eye to opercle on each side of head (the smaller specimens have a third dark streak from above angle of mouth to opercle), dorsal and caudal fins with round dark spots.

Four specimens, two of 367 mm. and 395 mm. in length respectively, procured by ss. *Pieter Faure* in large trawl, 46-55 fms., mud, Tugela River mouth, N. by W. 18 miles; one specimen, 188 mm. in length, caught in the Inner Harbour, Durban; and one, 153 mm. in length, from Mr. Romer Robinson, Natal.

All the specimens agree closely with Boulenger's description of *E. andersoni*, but are deeper in the body, especially the two smaller ones (the body contents, including gill-arches, had been removed in the type). The colouring of the small specimens differs somewhat from that of the larger ones.

EPINEPHELUS LANCEOLATUS, Bl.

Teeth, in broad bands on both jaws; canines small. Depth of body $3\frac{1}{6}$ times in total length excluding caudal, length of head $2\frac{2}{3}$ times. Snout very short, $4\frac{1}{3}$ times in length of head and twice the diameter of the eye, which is small and 9 times in length of head; interorbital width $4\frac{1}{10}$ times in length of head; lower jaw projecting beyond upper; maxillary reaches to much beyond vertical of posterior margin of eye, the width of its distal extremity equals $1\frac{1}{3}$ times diameter of eye; preoperculum rounded, finely serrated, the serræ somewhat enlarged at the angle; middle opercular spine nearer lower than upper, lower not further back than upper, opercular flap obtusely pointed, its upper border strongly convex; head entirely covered with cycloid scales, maxillary naked; gill-rakers moderate, 14 on lower part of anterior arch.

Dorsal xi 15; originating above base of pectorals; spines increasing in height to 3rd, which is $\frac{1}{3}$ length of head, posterior gradually lengthening to the last, which is $\frac{1}{4}$ length of head and $\frac{3}{5}$ height of longest soft ray. Pectorals a little more than $\frac{1}{2}$ length of head. Ventrals over $\frac{2}{3}$ length of head, spine strong and half the length of

the adjoining ray. Anal iii 8; 2nd spine shorter than 3rd, which is nearly as long as last spine of dorsal and $\frac{1}{2}$ height of longest anal rays. Caudal rounded, a little more than $\frac{3}{5}$ length of head. Scales $105\frac{1}{4}\frac{5}{6}$, mostly feebly ciliated, with rows of minute scales at their base.

Colour (of preserved specimen) brown with three or four irregular dark transverse bands; body reticulated with dark brown in places; fins covered with irregular brown spots disposed in irregular rows.

One specimen, 357 mm. in length, from Durban Museum.

(?) *EPINEPHELUS MELAS* (Peters).

Teeth, in 3 or 4 series on sides of mandibles; canines moderate. Depth of body equals length of head and slightly over 3 times in total length excluding caudal. Snout a little longer than diameter of eye, which is about $5\frac{3}{4}$ times in length of head; interorbital width 6 times in length of head; lower jaw projecting beyond upper; maxillary extends about $\frac{1}{2}$ diameter of eye beyond vertical of posterior margin of orbit, the width of its distal extremity equals $\frac{7}{8}$ diameter of eye; preopercular border rounded, finely serrated behind, serræ enlarged at angle; opercular spines about equidistant, lower further back than upper, opercular flap obtusely pointed and upper margin slightly rounded; head covered with cycloid scales, maxillary covered with minute scales; gill-rakers moderate, 16 on lower part of anterior arch.

Dorsal xi 15; originates above base of pectorals; spines increasing in length to 4th which is $\frac{1}{3}$ length of head, a little longer than last spine and a little shorter than longest soft rays. Pectorals $\frac{3}{5}$ length of head. Ventrals about $\frac{3}{7}$ length of head, not reaching anus. Anal iii 8; 2nd spine as long as 3rd, $\frac{1}{4}$ length of head and $\frac{3}{5}$ height of longest soft rays. Caudal sub-truncate, slightly rounded, nearly $\frac{3}{5}$ length of head. Scales cycloid, $98\frac{11}{32}$, lat. l. 68 (?).

Colour (of preserved specimen) very dark brown, almost black, with faint large round dark spots.

One specimen, 278 mm. in length, from Mr. Romer Robinson, Natal.

EPINEPHELUS TAUVINA, Forsk.

Teeth, in 3 series on sides of mandibles; canines small. Depth of body about 3 to $3\frac{1}{2}$ times in total length excluding caudal, length of head $2\frac{3}{4}$ to nearly 3 times. Snout $1\frac{1}{4}$ to $1\frac{5}{6}$ times diameter of eye, which is $5\frac{1}{3}$ to $6\frac{1}{2}$ times in length of head; interorbital width 5 to 6 times in length of head; lower jaw projecting beyond upper;

maxillary reaches to vertical of posterior third or in the larger specimens to beyond posterior margin of eye, the width of its distal extremity $\frac{2}{3}$ to nearly 1 diameter of eye; vertical limb of preoperculum slightly curved, serrated, and with slightly enlarged serræ at the angle: opercular spines nearly equidistant, the lower further back than upper, opercular flap pointed. Head almost entirely covered with cycloid scales; gill-rakers moderately elongate, 9 to 10 and 7 or 8 rudimentary on lower part of anterior arch.

Dorsal xi 15; originating above base of pectorals; spines increasing in length to 3rd or 4th, which is about $\frac{1}{3}$ length of head and $\frac{3}{4}$ to $\frac{3}{4}$ height of longest soft rays. Pectorals about $\frac{3}{4}$ length of head. Ventrals about $\frac{1}{2}$ length of head, not reaching anus. Anal iii 8; 2nd spine a little shorter than 3rd, which is about the height of longest spine of dorsal and $\frac{3}{4}$ to $\frac{1}{2}$ the height of longest anal rays. Caudal rounded, about $\frac{2}{3}$ length of head. Scales on body ctenoid, 108–112 $\frac{13}{10}$, lat. l. 62–68.

Colour (of preserved specimens) brown with darker spots, and with 5 or 6 irregular brownish bands across body.

Three specimens, two 172 mm. and 215 mm. in length respectively from Mr. Romer Robinson, Natal; the other, 269 mm. in length, from Durban Museum.

EPINEPHELUS MERRA, Bl.

Teeth, in 3 series on sides of mandibles; canines small. Depth of body $3\frac{1}{3}$ times in total length excluding caudal, length of head 3 times. Snout $1\frac{1}{2}$ times diameter of eye, which is 6 times in length of head; interorbital width $5\frac{1}{3}$ times in length of head; lower jaw strongly projecting beyond upper; maxillary reaching to slightly beyond the vertical of posterior margin of eye, the width of its distal extremity equals $\frac{1}{3}$ the diameter of the eye; preopercular border rounded, finely serrated behind, serræ enlarged at the angle; middle opercular spine slightly nearer upper than lower, lower not further back than upper, opercular flap pointed; head and maxillary covered with cycloid scales; gill-rakers short, 15 on lower part of anterior arch.

Dorsal xi 15; originates behind base of pectorals; spines strong, increasing in length to 4th or 5th which are $\frac{3}{10}$ length of head, about same length as last spine and $\frac{1}{2}$ height of longest soft rays. Pectorals $\frac{3}{4}$ length of head. Ventrals a little more than $\frac{1}{2}$ length of head, reaching about half-way to anus. Anal iii 9; 2nd spine as long as 3rd, which is a little more than $\frac{1}{4}$ length of and about $\frac{3}{4}$ height of

longest soft rays. Caudal truncate, nearly $\frac{3}{5}$ length of head. Scales on body slightly ciliated. Sc. 115 (circa), lat. tr. $\frac{1}{4}\frac{6}{10}$.

Colour (of preserved specimen) brown; head and body covered with large, closely set dark brown spots separated by a honey-combed network of light lines; fins covered with dark brown spots arranged more or less in rows.

One specimen, 400 mm. in length, from Durban Museum.

EPINEPHELUS GRAMMATOPHORUS, Blgr.

Teeth, in narrow bands, in 2 series on sides of mandibles; canines strong. Depth of body 3 times in total length excluding caudal, length of head $2\frac{3}{5}$ to $2\frac{3}{4}$ times. Snout a little longer than diameter of eye, which is $4\frac{1}{2}$ to $4\frac{2}{3}$ times in length of head; interorbital width about $\frac{2}{3}$ diameter of eye; lower jaw projects beyond upper; maxillary reaches to vertical of posterior margin of orbits, the width of its distal extremity is about $\frac{2}{3}$ diameter of eye; vertical limb of preoperculum strongly serrated and slightly emarginate above the angle, serræ at angle slightly enlarged; opercular spines about equidistant, lower much further back than upper, opercular flap pointed. Gill-rakers 15 on lower part of anterior arch, nearly as long as gill-fringes; head nearly entirely covered with cycloid scales, maxillary naked.

Dorsal xi 16; originating above base of pectorals; 3rd spine longest, about $\frac{2}{5}$ length of head, succeeding spines decrease in length the last being about $\frac{1}{4}$ length of head and a little shorter than longest soft rays. Pectorals $\frac{2}{3}$ length of head. Ventrals about $\frac{1}{2}$ length of head. Anal iii 8; 2nd spine strongest, about equal to 3rd, and $\frac{3}{5}$ to $\frac{2}{3}$ height of longest spine of dorsal; soft rays slightly lower than longest spine of dorsal. Caudal slightly rounded, $\frac{1}{2}$ to $\frac{2}{3}$ length of head. Scales ctenoid on body. Sc. 96, lat. tr. $\frac{1}{4}\frac{0}{10}$ (circa).

Colour (in fresh state), generally of a bright vermillion red on the head and anterior region of the body, becoming brown towards the tail; three broad irregular bands of brown across body; a large bright red oval patch of colour at the base of the pectorals; fins of a dark reddish brown; a series of irregular thin blue lines radiating from the eye over snout, cheek, and operculum.

Colour (of preserved specimens), light brown with small brown spots and faint dark bands across body; head with small brown spots, vermiculations, and oblique lines from orbits.

Two specimens, 268 mm., 270 mm. in length respectively; the former from Durban market, the latter from Mr. Romer Robinson, Natal.

EPINEPHELUS GIGAS, Brünn. (juv.).

Teeth, in narrow bands, in 2 series on sides of mandibles; canines moderate. Depth of body $2\frac{7}{10}$ to 3 times in total length excluding caudal, length of head $2\frac{3}{5}$ to $2\frac{3}{4}$ times. Snout $1\frac{1}{10}$ to $1\frac{2}{5}$ times diameter of eye, which is $4\frac{2}{3}$ to $5\frac{1}{5}$ times in length of head; interorbital width about $5\frac{1}{3}$ to $5\frac{2}{3}$ times in length of head; lower jaw projecting beyond upper; maxillary reaches to vertical of middle or posterior border of eye, the width of its distal extremity $\frac{3}{5}$ to $\frac{3}{4}$ diameter of eye; vertical limb of preoperculum finely serrated, slightly emarginate at angle which is obtusely rounded and armed with enlarged serræ; middle opercular spine nearer lower than upper, lower further back than upper, opercular flap pointed; head covered with cycloid scales, maxillary naked; gill-rakers moderately elongate, 15 or 16 on lower part of anterior arch.

Dorsal xi 16; originates above base of pectorals; 4th or 3rd and 4th spines longest, $\frac{2}{5}$ to nearly $\frac{1}{2}$ length of head and as long as or a little longer than the longest soft rays; last spine about $\frac{1}{3}$ length of head. Pectorals about $\frac{3}{5}$ length of head. Ventrals a little more than $\frac{1}{2}$ length of head (in the smaller specimen they reach to anus). Anal iii 8; 2nd and 3rd spines equal in length, $\frac{1}{4}$ to $\frac{1}{3}$ length of head and $\frac{3}{5}$ to $\frac{2}{3}$ height of longest soft rays. Caudal rounded or subtruncate, $\frac{3}{5}$ to $\frac{2}{3}$ length of head. Scales cycloid above lateral line, feebly ciliated below. Sc. 108-114 $\frac{14-15}{40-45}$.

Colour (of preserved specimens), uniform brown with irregular markings; edges of fins whitish, faint rows of light spots on soft dorsal.

Three specimens, 254 mm., 170 mm., 138 mm. in length respectively, the largest from Durban Museum, the others from Mr. Romer Robinson, Natal.

They agree fairly well with descriptions of immature forms of *E. gigas*.

EPINEPHELUS FASCIATUS, Forsk.

(Red Rock-cod.)

Teeth, in 3 series on sides of mandibles; canines small. Depth of body 3 times in total length excluding caudal, length of head $2\frac{2}{3}$ to $2\frac{7}{10}$ times. Snout a little longer than diameter of eye, which is $4\frac{1}{2}$ to $4\frac{3}{5}$ times in length of head; interorbital width about $6\frac{1}{3}$ times in length of head; lower jaw projects beyond upper; maxillary reaches to vertical of posterior fourth of eye, the width of its

distal extremity nearly $\frac{3}{5}$ diameter of eye; preoperculum finely serrated on vertical border, emarginate above the angle which is rounded and has slightly enlarged serræ; opercular spines about equidistant, lower further back than upper, median strongly developed, opercular flap pointed; head nearly entirely covered with small cycloid scales, maxillary with minute scales; gill-rakers moderate, 15 or 16 on lower part of anterior arch.

Dorsal xi 16; originating above base of pectorals; spines increasing in length to 3rd and 4th which are about $\frac{1}{3}$ length of head, last spine $\frac{1}{4}$ length of head; longest soft rays nearly $\frac{2}{3}$ length of head. Pectorals nearly $\frac{2}{3}$ length of head. Ventrals a little more than $\frac{1}{2}$ length of head, not quite reaching to anus. Anal iii 8; 2nd and 3rd spines about equal and about $\frac{3}{10}$ length of head; longest soft rays nearly $\frac{1}{2}$ length of head. Caudal subtruncate, $\frac{3}{5}$ length of head. Scales on body ciliated. Lat. l. 56, sc. 100-108 $\frac{10}{35-38}$.

Colour (when fresh), body and fins vermillion red. The interspinous membrane behind tip of each dorsal spine has a dark brown triangular blotch at its free edge; these blotches remain as black marks in the preserved state, when all the other colouring has been bleached out.

Two specimens, one 273 mm. in length from the Durban market, the other 203 mm. in length from Durban Museum.

EPINEPHELUS, sp. A (juv.).

Teeth, in 2 series on mandibles; canines not apparent. Depth of body a little more than 3 times in total length excluding caudal, length of head $2\frac{7}{10}$ times. Snout short, about $\frac{3}{4}$ diameter of eye, which is $3\frac{2}{5}$ times in length of head; interorbital width $5\frac{2}{3}$ times in length of head; jaws about equal; maxillary reaches to vertical of middle of eye, the width of its distal extremity equals $\frac{1}{2}$ diameter of eye; preoperculum serrated, with enlarged serræ at the angle which is obtusely rounded; lower opercular spine slightly nearer median and further back than upper, opercular flap pointed and upper margin concave; head covered with cycloid scales, scales on maxillary; gill-rakers nearly as long as gill-fringes, 12 on lower portion of anterior arch.

Dorsal xi 16; originates above base of pectorals; 4th and 5th spines longest, a little over $\frac{1}{3}$ length of head and $\frac{1}{5}$ height of longest soft rays. Pectorals $\frac{7}{10}$ length of head. Ventrals $\frac{3}{5}$ length of head, reaching to anus. Anal iii 8; 2nd and 3rd spines about equal, $\frac{2}{5}$ length of head and $\frac{1}{5}$ height of longest soft rays which are slightly

higher than those of soft dorsal. Caudal rounded, $\frac{3}{5}$ length of head. Scales cycloid, 90 (circa).

Colour (of preserved specimen), olive-brown; body covered with large and small white spots; dorsal with a row of small round white spots on lower part, with a row of irregular large white spots above, extremity of the fin light-coloured; anal with about 8 white spots; caudal with 2 white spots at its base and 2 rows of smaller ones about its middle; a few white spots on pectorals, and the extremity of pectorals and ventrals tinged with white; a few white spots on head.

One specimen, 46 mm. in length, from Mr. Romer Robinson, Natal, taken at Durban. It does not correspond to any of the species here described, of one of which however it may be an immature form.

EPINEPHELUS, sp. B (juv.).

Teeth, in narrow bands, in 2 series on mandibles; canines moderate. Depth of body nearly $3\frac{1}{4}$ times in total length excluding caudal, length of head $2\frac{3}{5}$ times. Snout short, equals diameter of eye, which is nearly $4\frac{1}{4}$ times in length of head; interorbital width $8\frac{2}{3}$ times in length of head; jaws about equal; maxillary reaches to vertical of middle of eye, width of its distal extremity $\frac{3}{5}$ diameter of eye; preoperculum serrated, with enlarged serræ at the angle; upper opercular spine at a greater distance from median and further back than lower, opercular flap pointed with its upper border convex; head, including maxillary, nearly entirely covered with cycloid scales; gill-rakers moderate, 17 on lower part of anterior arch.

Dorsal xi 16; originates above base of pectorals; 3rd spine longest, $\frac{2}{5}$ length of head and about the height of longest soft rays. Pectorals $\frac{3}{5}$ length of head. Ventrals $\frac{1}{2}$ length of head, reaching to vent. Anal iii 9; 2nd and 3rd spines equal in length, $\frac{2}{5}$ length of head and $\frac{5}{8}$ height of longest soft rays. Caudal rounded, $\frac{3}{5}$ length of head. Scales mostly cycloid, some on the sides are feebly ciliated. Lat. l. 60, sc. 100 (circa).

Colour (of preserved specimen), brown; head and body covered with large dark spots of unequal size (the largest about the size of the eye) bordered by a light margin; dorsal, anal, and caudal with large round blackish spots with a whitish band separating them into rows; pectorals dark brown; all the fins with a whitish outer edge.

One specimen, 68 mm. in length, from Mr. Romer Robinson, Natal, taken at Durban.

DENTEX ROBINSONI, n. sp.

Teeth, 4 rather small canines in upper jaw which hardly differ from the canine-like teeth about 7 in number which follow; 4 canines on lower jaw separated by an interspace (filled with small teeth) from the succeeding canine-like teeth about 9 in number. Depth of body $2\frac{1}{4}$ times in total length excluding caudal, length of head 3 times. Snout $1\frac{1}{4}$ times diameter of eye, which equals interorbital width and is 3 times in length of head. Profile of head descends in an oblique line from nape to snout; interorbital space flat, a depression on each side of nape above orbits; depth of preorbital nearly equals diameter of eye; cleft of mouth oblique, jaws about equal, maxillary reaches to vertical of anterior nostril and is almost entirely hidden by preorbital; 5 series of scales on preoperculum which is entire; preopercular border and preorbital without scales and covered with minute pores; operculum scaly, with an inconspicuous spine.

Dorsal x 11; spines slender and rather flexible, 3rd spine longest slightly more than $\frac{1}{3}$ length of head, succeeding spines decreasing in length to the last which is a little longer than penultimate one and about the same height as the 3rd but shorter than the soft rays. Pectorals $\frac{2}{3}$ length of head. Ventrals $\frac{3}{4}$ length of head, reaching to origin of anal. Anal iii 9; spines moderately strong, 3rd longest; soft rays a little lower than those of soft dorsal. Caudal damaged in specimen; lat. l. 45, lat. tr. $\frac{6}{17}$.

Colour, a pale flesh tint.

One specimen, 260 mm. in length, from Mr. Romer Robinson Natal; who supplies a note of the colour, and states that the fish is taken on hand-lines in the open sea off the Natal Coast south of Durban.

APRION FILAMENTOSUS (C. and V.).

Teeth, villiform with an outer row of widely set canines, the anterior ones largest. Depth of body nearly $3\frac{1}{2}$ times in total length excluding caudal, length of head nearly 4 times. Snout equals interorbital width and is $1\frac{3}{4}$ times diameter of eye, which is $4\frac{1}{5}$ times in length of head; distance between eye and angle of mouth equals $\frac{7}{10}$ diameter of orbit. Lower jaw prominent projecting beyond upper, maxillary reaches to vertical of anterior third of eye and slightly covered by preorbital; preoperculum emarginate, angle rounded and slightly produced; 7 series of scales between eye and angle of preoperculum; operculum with two blunt inconspicuous spines.

Dorsal x 11; spines strong; 4th spine longest nearly $\frac{1}{2}$ length of

head, succeeding spines decreasing to last which is nearly $\frac{3}{4}$ height of longest; soft rays same height as adjacent spine except the last which is about double the length of the preceding. Pectorals slightly longer than head. Ventrals about $\frac{7}{8}$ length of head. Anal iii 8; 2nd spine not quite as long as 3rd which is about $\frac{1}{2}$ the height of longest spine of dorsal; soft rays subequal and about $1\frac{3}{10}$ times height of adjacent spine, except the last ray which is produced and nearly twice the height of the preceding rays. Caudal deeply lobed; lat. l. 62, lat. tr. $\frac{6}{16}$.

Colour (of preserved specimen), grey with a reddish tinge on back and yellowish on sides.

One specimen, 632 mm. in length, from Durban market.

GERRES LINEOLATUS, Günth.

Depth of body $2\frac{1}{2}$ to $2\frac{2}{3}$ times in total length excluding caudal, length of head $3\frac{2}{3}$ to $3\frac{1}{2}$ times. Snout equals interorbital width and is slightly greater than diameter of eye, which is 3 to $3\frac{1}{2}$ times in length of head. Maxillary reaches to vertical of anterior margin of eyes.

Dorsal ix 10; spines slender; 2nd spine longest, $\frac{2}{3}$ length of head and about $\frac{1}{2}$ height of body. Pectorals about $1\frac{1}{3}$ times length of head, reaching to anal. Ventrals $\frac{3}{5}$ length of head. Anal iii 7; 2nd spine slightly longer and stronger than 3rd, about same strength as 2nd spine of dorsal and from $\frac{3}{5}$ to $\frac{2}{5}$ its height. Caudal deeply forked, the upper lobe longer and about $1\frac{1}{3}$ times length of head, scaleless; lat. l. 40-45, lat. tr. $\frac{6}{11}$.

Two specimens, one 152 mm. in length, from Durban Museum; the other, 176 mm. in length, from Mr. Romer Robinson, Natal.

FAMILY SQUAMIPINNES.

CHÆTODON LUNULA, Lacép.

Depth of body $1\frac{2}{3}$ times in total length excluding caudal, length of head $3\frac{1}{4}$ times. Snout a little longer than diameter of eye, which equals the interorbital width and is a little more than 3 times in length of head. Dorsal profile much elevated, and concave before the eyes; snout produced, jaws equal, upper lip very thick; maxillary reaches to vertical of anterior nostril, which has a flap;

preoperculum very finely serrated, more coarsely so at angle, which is rounded.

Dorsal xii 22; commences above base of pectorals; spines strong and low anteriorly, rising to 5th which is $\frac{3}{5}$ length of head; from 5th to 12th the spines are subequal; soft portion of fin rounded and slightly higher in the centre than the longest spines. Pectorals $\frac{1}{5}$ length of head. Ventrals $\frac{3}{4}$ length of head, spine strong and about $\frac{3}{4}$ height of adjacent ray which reaches to vent. Anal iii 18; 2nd spine strongest and same length as 3rd, which is slightly higher than longest dorsal spine; soft portion of fin similar to soft dorsal, but the middle rays are about $\frac{1}{4}$ higher. Caudal nearly truncate, $\frac{3}{5}$ length of head. Scales ciliated, cover the whole of the head; lat. l. 40, ceases below last two or three rays of soft dorsal; lat. tr. $1\frac{7}{7}$.

Colour (of preserved specimen), brown; a dark band about the diameter of the eye in width behind middle of orbits, passing downwards through eye where it widens out on posterior margin, and again contracting passes on to the lower margin of preoperculum; a dark band passing downwards and forwards from base of 5th and 6th spines of dorsal, where it is about $\frac{3}{4}$ diameter of eye in width, to opercular border above base of pectorals, where it is about twice diameter of eye; another dark band passes from its upper end along base of dorsal, and in the oval space embraced by these two last-mentioned bands is a much fainter band; a dark band on border of spinous and soft dorsals, with a second band running diagonally through the soft dorsal meeting a large dark spot at base of caudal; a pair of dark bars across caudal; anal with a narrow dark band on its outer third and a black band on the edge.

One specimen, 110 mm. in length, from Durban Museum.

EPHIPPIUS FABER, Brouss.

Depth of body $1\frac{2}{5}$ times in total length excluding caudal, length of head nearly $3\frac{1}{2}$ times. Snout $2\frac{1}{5}$ times diameter of eye, which is $1\frac{2}{5}$ times in interorbital space and $3\frac{3}{4}$ times in length of head. Upper profile of head much elevated, rising rapidly from snout to dorsal fin, a protuberance at anterior upper angle of orbits, the profile thence to point of snout slightly concave. Least depth of preorbital nearly $1\frac{1}{3}$ times diameter of eye; upper lip thick and slightly projecting beyond lower, cleft of mouth small, maxillary reaches to vertical of anterior nostril; preoperculum narrow, the vertical limb and angle finely denticulated.

Dorsal viii, i 20; 3rd, 4th, and 5th spines elongate and filiform at

extremities, the 3rd being longest and $1\frac{1}{5}$ times length of head, the remaining spines short and strong. Anterior soft rays elongate, about $\frac{1}{2}$ length of 3rd spine and from $\frac{1}{2}$ to $\frac{1}{3}$ height of the rays in posterior third of fin. Pectorals $\frac{7}{10}$ length of head. Ventrals, 1st ray elongate, $1\frac{1}{3}$ times length of head and reaching to anal. Anal iii 18; anterior rays elongate and about same height as those of soft dorsal, succeeding rays descending to about $\frac{1}{3}$ of that height, the upper margin of the fin being slightly concave. Caudal emarginate, equals length of head. Bases of vertical fins scaled; lat. l. 65.

Colour (of preserved specimen), grey, with about 6 faint brownish cross bands on body, the anterior band passing through the eye.

One specimen, 216 mm. in length, from Mr. Romer Robinson, Natal.

This fish is characteristic of the Atlantic coast of America, and its occurrence at Natal, where so many of the fishes of the Indian Ocean and Eastern seas are found, is of interest.

FAMILY MULLIDÆ.

UPENEUS NATALENSIS, n. sp.

Teeth, a single series of teeth in both jaws, the most posterior widely apart. Depth of body 3 times in total length excluding caudal, length of head $3\frac{3}{10}$ times. Snout 3 times diameter of eye, which is nearly $1\frac{3}{4}$ times in interorbital width and $5\frac{1}{2}$ times in length of head. Height of head nearly equals its length; snout somewhat protruding, with a transverse groove in front of anterior nostril; upper jaw slightly overlaps lower; maxillary, which is very broad posteriorly, reaches to vertical of about two-thirds of the way from snout to anterior margin of orbits; preorbital naked and covered with small pores; interorbital space convex; opercular spine short and strong. Barbels reach to the vertical of posterior border of preoperculum.

Dorsal viii 9; 1st spine minute, 4th longest and nearly $\frac{3}{5}$ length of head, remaining spines shortening posteriorly; 3 rows of scales between 1st and 2nd dorsal fins. Soft rays of 2nd dorsal anteriorly nearly $\frac{3}{4}$ height of longest spine of 1st dorsal, shortening posteriorly to about $\frac{3}{4}$ height of longest ray. Pectorals nearly $\frac{2}{3}$ length of head. Ventrals nearly $\frac{9}{10}$ length of head. Anal i 7; commences about in

line with 3rd ray of 2nd dorsal, 1st spine minute, soft rays about same height anteriorly as those of 2nd dorsal and shortening posteriorly, the last ray being a little prolonged. Caudal deeply forked, lobes pointed, over $\frac{1}{3}$ length of head; free portion of tail about $1\frac{3}{4}$ times as long as its least depth. Tubes of lateral line arborescent, especially anteriorly; lat. l. 29, lat. tr. $\frac{24}{7}$. Scales feebly ctenoid, extending over head to snout, 3 rows on cheeks, 2 entire rows between lateral line and bases of dorsal fins.

Colour (of preserved specimen), reddish, edge of spinous dorsal black, a large dark blotch extending over the caudal peduncle from the lateral line of one side to the lateral line on the other.

One specimen, 298 mm. in length, from Mr. Romer Robinson, Natal.

FAMILY SPARIDÆ.

SARGUS DURBANENSIS, Cast.

(Brusher.)

Teeth, incisors stout, short and slightly recurved, with cutting edge, 4 on each jaw, the upper incisors project beyond the lower lip and are visible when the mouth is closed; 3 or 4 rows of rounded molars on upper jaw, 2 rows on lower, the last of the inner row being very large, oblong in circumference, and about $\frac{1}{2}$ diameter of eye in length. The body is relatively short, its depth being $2\frac{1}{5}$ times in total length excluding caudal, length of head $3\frac{1}{2}$ times. Snout projects beyond lower jaw and is $3\frac{2}{5}$ times diameter of eye, which is $6\frac{3}{5}$ times in length of head and $2\frac{7}{10}$ times in interorbital space, which is convex. Upper lip broad in centre, maxillary reaches to vertical of middle of eye; preorbital emarginate in last $\frac{3}{4}$ of lower edge, least depth $1\frac{1}{3}$ times diameter of eye; 6 or 7 series of scales between preorbital and angle of preoperculum; operculum with a blunt inconspicuous spine.

Dorsal xi 11; spines strong; 4th spine longest, $2\frac{1}{2}$ times in length of head, succeeding spines decreasing to $\frac{2}{3}$ height of 4th; anterior soft rays a little shorter than longest spine, decreasing to about half that length. Pectorals nearly as long as head, pointed, reaching to vent. Ventrals a little more than $\frac{2}{3}$ length of head. Anal iii 10; 3rd spine longest, $\frac{2}{3}$ height of longest spine of dorsal; soft rays anteriorly $\frac{1}{5}$ height of longest spine of dorsal, decreasing posteriorly to same height as those of soft dorsal. Caudal forked, $\frac{7}{10}$ length of

head. Scales large, height nearly equalling vertical diameter of eye, those of the neck well marked, not extending between eyes; a row of fine scales on each ray of caudal. Lat. l. 60, lat. tr. $\frac{7}{17}$.

The specimen, 455 mm. in length, from which the above description is taken, is a comparatively large fish, and was sent by Mr. Romer Robinson, Natal, who procured it off the Breakwater at Durban.

S. durbanensis, of Castelnau, is very insufficiently described; his description of the incisors as "fort épaisses et arrondies en avant" seems to indicate that he referred to the species above described.

CANTHARUS MICROLEPIS, n. sp.

Depth of body $2\frac{2}{3}$ times in total length excluding caudal, length of head nearly $3\frac{3}{4}$ times. Snout equals diameter of eye, which is slightly less than interorbital width and $3\frac{1}{2}$ times in length of head. Profile of head slightly depressed between the eyes; preorbital with a notch, its depth slightly over $\frac{1}{3}$ the diameter of the eye; 8 series of scales between preorbital and inner angle of preoperculum; cleft of mouth oblique, lower jaw slightly longer than upper, maxillary reaches to vertical of posterior nostril; opercles scaled.

Dorsal xi 11; spines weak and flexible, 4th longest and about $\frac{1}{2}$ length of head; soft portion of fin lower than spinous, the anterior rays which are longest being only about $\frac{7}{10}$ length of longest spine. Pectorals as long as the head, reaching to anal. Ventrals $\frac{7}{10}$ length of head. Anal iii 10; 3rd spine longest, about $\frac{2}{3}$ height of adjacent soft rays and about $\frac{1}{2}$ height of longest spine of dorsal. Caudal deeply forked, $\frac{9}{10}$ length of head. Lat. l. 95, lat. tr. $\frac{1}{2}\frac{1}{2}$.

Colour (of preserved specimen), light brown, scales speckled with minute dark spots; fins blackish, a light longitudinal band along median line of body.

One specimen, 157 mm. in length, from Mr. Romer Robinson, Natal.

CANTHARUS SIMUS, n. sp.

Depth of body $2\frac{1}{2}$ times in total length excluding caudal, length of head 3 times. Snout a little less than interorbital width and $1\frac{3}{5}$ times diameter of eye, which is $4\frac{1}{2}$ times in length of head. Profile of head elevated with a protuberance above and in front of the eyes, the profile of snout is concave giving a characteristic pug-nosed appearance; lower jaw projecting beyond upper; cleft of mouth curved, oblique; maxillary reaches to vertical of posterior nostril,

which is an oblique slit in front of eye; preorbital not notched by maxillary bone, least depth about equals diameter of eye; 10 series of scales between preorbital and preopercular limb, which is covered with scales and has a rounded angle with minute scarcely perceptible serrations.

Dorsal xi 11; spines moderately strong; 4th spine longest and about $\frac{1}{2}$ length of head, succeeding spines decreasing to the last, which is about $\frac{3}{5}$ height of 4th and a little lower than adjacent soft rays; soft portion of fin increases in length posteriorly to about $\frac{7}{10}$ height of longest spine. Pectorals $1\frac{3}{10}$ length of head, reaching to anus. Ventrals nearly $\frac{3}{4}$ length of head. Anal iii 10, spines moderately strong; 2nd spine longer than 3rd, about same height as soft rays and equal to 2nd spine of dorsal; soft portion of fin similar to soft dorsal and about same height. Caudal forked, lobes covered with scales for over half their length. Scales on body ctenoid, moderately large; small on cheeks, opercles, and top of head where they reach to above the vertical of anterior third of eyes but with a naked space round the orbits; base of soft dorsal and anal enclosed in a scaly sheath. Suprascapular arch well marked. Lat. l. 87, lat. tr. $\frac{10}{20}$.

Colour (of preserved specimen), grey above, light-coloured below; dorsal and anal blackish.

One specimen, 330 mm. in length, from the Fishmarket, Durban.

PAGELLUS AFFINIS, Blgr.

Depth of body equals length of head and is about 3 times in total length excluding caudal. Eye nearer end of snout than extremity of gill-cover, its diameter equals interorbital width and is $1\frac{1}{2}$ times in length of snout and $3\frac{1}{2}$ times in length of head. Maxillary reaches to vertical of anterior margin or third of eye; preorbital about $\frac{2}{3}$ as deep as long, maxillary edge slightly notched; 6 series of scales between preorbital and angle of preoperculum; posterior nostril ovate.

Dorsal xii 10; spines flexible and anterior ones filamentous; 3rd spine longest, about $\frac{1}{4}$ length of head and equals its distance from lateral line; soft rays about same height as longest spine, last ray slightly elongated. Pectorals about length of head, reaching to below origin of soft dorsal. Ventrals nearly $\frac{1}{2}$ length of head. Anal iii 10; 2nd and 3rd spines about equal and $\frac{5}{6}$ height of longest spine of dorsal; soft portion of fin similar to and about same height

as soft dorsal. Caudal deeply forked, $\frac{3}{4}$ length of head. Lat. l. 60, lat. tr. $\frac{6}{16}$.

Colour, a red fish (the "Rooi Chor-chor" of Mossel Bay), with dark marks in the centre of some of the scales in the preserved state.

Two specimens, one 146 mm. in length, from Mr. Romer Robinson, Natal; the other, 93 mm. in length, procured by ss. *Pieter Faure* by shrimp trawl, 12-19 fms., between anchorage St. John's and Bluff Point.

These seem to be immature forms of Boulenger's *P. affinis*, the type of which is a stuffed specimen, 1 ft. 2 in. in length, from Muscat, and a skin from the Cape of Good Hope, noticed under *P. erythrinus* by Günther (Cat. Fish, i., pp. 474, 475) as belonging probably to a new species. Boulenger notes that the molar teeth are smaller than in *P. erythrinus*, and Günther that there are 10 rays in the anal.

PAGELLUS LITHOGNATHUS, C. and V.

Teeth, in 3 series on upper jaw, in 2 rows anteriorly and 1 posteriorly on lower jaw, the molars in the single series being double the size of the others. Depth of body about equals length of head and is 3 times in total length excluding caudal. Snout $3\frac{1}{10}$ times diameter of eye, which is nearly twice in interorbital width and $6\frac{3}{5}$ times in length of head; snout produced, upper lip thick and very protractile, maxillary reaches to vertical of anterior nostril and bent with the concavity downwards and forwards; pre-orbital much narrower posteriorly, its greatest depth $2\frac{1}{3}$ times diameter of eye; 7 series of scales between preorbital and angle of preoperculum; posterior nostril elongated.

Dorsal xi 10; spines moderately strong, compressed; 4th spine longest, its length equal to the distance between the 3rd and 7th spines and equals $\frac{2}{5}$ length of head; spinous portion of fin higher than the soft-rayed. Pectorals nearly equal length of head and reach to anal. Ventrals about $\frac{1}{2}$ length of head, reaching to vent. Anal iii 8; spines strong; 2nd and 3rd about equal in height, about $\frac{2}{3}$ height of longest spine of dorsal and over $\frac{1}{5}$ height of soft rays, which are a little higher than those of soft dorsal; the last ray of the anal is slightly produced beyond the preceding rays and is nearly the same height as the first rays. Caudal forked. Scales fairly large, ciliated. Lateral line slightly curved and runs parallel to the back. Lat. l. 46 and 5 or 6 on caudal, lat. tr. $\frac{4\frac{1}{2}}{14}$.

Colour (of preserved specimen), uniform grey with faint dark cross-bars on body.

One specimen, 339 mm. in length, from Mr. Romer Robinson, Natal. The specimen is immature, and its description agrees with that given by Günther for the young of *P. lithognathus*.

CHRYSOPHRYS PUGICEPHALUS, n. sp.

(Daggerhead.)

Teeth, anteriorly 4 strong conical canines in upper, 6 in lower jaw; behind these are small rounded teeth the anterior of which are slightly conical and pass backwards to the large row of teeth on each jaw, which gradually increase in size, the most posterior being rounded but not greatly enlarged; interior to the row of teeth in the jaws are two single rows of small rounded teeth. Depth of body $2\frac{1}{10}$ times in total length excluding caudal, length of head $2\frac{1}{5}$ times ($3\frac{1}{3}$ times with caudal). Snout $2\frac{1}{2}$ times diameter of eye, which is $1\frac{2}{3}$ times in interorbital width and $5\frac{1}{5}$ times in length of head. Upper profile of neck slightly parabolic, that of head straight and obliquely descending; interorbital space very slightly convex; preorbital slightly emarginate, least depth $1\frac{2}{5}$ times diameter of eye, $1\frac{3}{5}$ times as long as high and covers maxillary bone nearly entirely; 12 series of scales between preorbital and interior ridge of preoperculum, the limb of which is entirely covered with scales; cleft of mouth slightly oblique, jaws about equal, maxillary reaches to vertical of anterior third of orbits; 2 blunt inconspicuous spines on operculum.

Dorsal xi 11; spines moderately strong, 4th to 6th longest and $\frac{1}{3}$ length of head; anterior soft rays about same length as posterior spines, rising posteriorly to nearly the height of 4th spine. Pectorals a little longer than head, reaching to anterior soft rays of anal. Ventrals $\frac{2}{3}$ length of head, reaching to vent. Anal iii 9; spines strong, 2nd spine longest and about $\frac{4}{5}$ height of longest dorsal spines; soft rays highest posteriorly, where they are slightly higher than longest spines of dorsal. Caudal deeply emarginate, $\frac{7}{10}$ length of head. Lat. l. 60, lat. tr. $\frac{9}{10}$.

Colour (of preserved specimen), uniform reddish yellow; a dark band across snout from eye to eye.

One specimen, 295 mm. in length, from Mr. Romer Robinson, Natal; caught off Durban.

Near *C. cristiceps*, but may be distinguished by longer head,

which in *C. cristiceps* is contained 3 times in length of body without caudal.

The local name, "Daggerhead," does not, as might be supposed, refer to the shape of the head, but is a corruption of the Dutch word "Daageraad," a name applied in Cape Colony to a fish somewhat resembling but not identical with this fish.

FAMILY BERYCIDÆ.

HOLOCENTRUM sp.

Depth of body $2\frac{9}{10}$ times in total length excluding caudal, length of head $2\frac{3}{4}$ times. Snout $\frac{3}{5}$ diameter of eye, which is $2\frac{4}{5}$ times in length of head; interorbital width $\frac{2}{3}$ diameter of eye and $4\frac{1}{6}$ times in length of head; height of head equals its length without the snout, width of head equals $\frac{1}{2}$ its length; maxillary reaches to vertical of anterior third of orbit; preoperculum denticulated on both vertical and horizontal limbs with an entire fluted spine at the angle $\frac{1}{2}$ the diameter of the eye in length; operculum strongly denticulated, with 2 distinct spines, the upper of which is longer than the lower but not quite equal to that on the preopercle; lower edge of preorbital serrated, with a triangular tooth-like process directed downwards; no nasal spines, turbinal bones ending anteriorly in 2 blunt processes; posterior edge of sub- and inter-opercles and posterior half of upper edge of orbit denticulated; 2 sinuous bony ridges from nostrils through interorbital space and dividing on occiput into about 9 radiating ridges ending in spinate points.

Dorsal xi, i 12; 3rd to 5th spines longest, about $\frac{1}{2}$ height of head and higher than soft rays, but shorter than the longest anal spine; interspinous membrane deeply cleft. Pectorals nearly $\frac{2}{3}$ length of head and as long as ventrals, which reach to vent. Anal iv 9; 3rd spine very strong and nearly $\frac{1}{5}$ of total length of body excluding caudal. Caudal forked. Scales not fluted, strongly ctenoid; 8 rows between occiput and base of dorsal fin, 7 or 8 rows along the preopercle. Lat. tr. $\frac{3\frac{1}{2}}{7}$.

Colour when fresh is reported as pinkish; in the preserved state it is grey, covered with minute brown specks on upper half of body and with 8 or 9 light yellowish lines along the body from head to caudal; spinous dorsal black, with a white longitudinal band on lower fourth.

One specimen, 69 mm. in length, from Mr. Romer Robinson, Natal, procured at Port Natal. It is so much damaged posteriorly that a specific determination does not seem desirable.

FAMILY SCORPÆNIDÆ.

SCORPÆNA NATALENSIS, Regan.

Teeth, a band of fine teeth on each jaw, a patch on vomer, and a narrow band on palatines. Depth of body nearly $2\frac{1}{3}$ times in total length excluding caudal, length of head nearly $2\frac{1}{2}$ times. Snout about $1\frac{1}{3}$ times diameter of eye, which equals interorbital width and is nearly 5 times in length of head. Jaws equal anteriorly, maxillary reaches to vertical of middle of eye. Head naked; interorbital space concave with a pair of weak ridges; occiput with a quadrangular depression; a pair of nasal spines; each supraorbital ridge with 3 spines, with a spine near its posterior extremity; parieto-occipital region with a pair of spines on each side; 2 spines on temporal ridge; suborbital with 2 spines leading to a double spine on preoperculum, below which are 3 preopercular spines. Nine gill-rakers on lower part of anterior arch.

Dorsal xii 10; 4th spine longest, a little more than $\frac{2}{3}$ length of head and double the height of penultimate spine, which is $\frac{3}{4}$ the height of the last; soft rays about the same height as longest spine. Pectorals $\frac{7}{10}$ length of head, with 9 branched and 10 simple rays, nearly reaching origin of anal. Ventrals i 5; $\frac{3}{5}$ length of head, extending to vent. Anal iii 5; 2nd and 3rd spines about same length, $\frac{1}{2}$ length of head and $\frac{2}{3}$ height of longest spine of dorsal; soft rays similar to soft dorsal and about the same height. Caudal rounded, nearly $\frac{2}{3}$ length of head. Lat. l. 26, sc. 48 $\frac{5}{5}$?

Colour (of preserved specimen), body and fins marbled and spotted with brown.

One specimen, 167 mm. in length, from Durban Museum.

SCORPÆNA DURBANENSIS, n. sp.

Teeth, a band of fine teeth on each jaw, teeth on palate. Depth of body 3 times in total length excluding caudal, length of head $2\frac{3}{4}$ times. Eye $1\frac{3}{5}$ times in snout and 4 to $4\frac{7}{10}$ times in head; interorbital width $1\frac{1}{3}$ times in diameter of eye. Lower jaw projects

beyond upper, maxillary reaches to vertical of posterior half of orbits. Interorbital space concave with a small central and 2 lateral ridges; a quadrangular depression at occiput; supraorbital ridge with 4 spines, with an additional spine close behind them; occipital and temporal ridges spinate, with 2 and 3 spines respectively; a spine at each anterior nostril; the ridge of spines in the suborbital region commences with 2 directed forwards and laterally over the maxilla, followed by 4, and ending in a double spine on preoperculum which has an additional 2 spines below.

Dorsal xii 10; spines strong, highest in middle; 4th or 4th and 5th longest, nearly $\frac{1}{2}$ length of head and nearly as high as longest soft rays. Soft rays about $\frac{1}{10}$ higher than the adjacent spine, which is strong and about double the length of the preceding one. Pectorals 17, the upper rays branched and $\frac{3}{4}$ to $\frac{5}{8}$ length of head, 11 lower rays simple. Ventrals i 5; $\frac{2}{3}$ length of head. Anal iii 5; 2nd spine much stronger than 3rd, slightly longer than longest spine of dorsal and about $\frac{1}{2}$ length of head; anterior soft rays nearly $\frac{1}{3}$ longer than rays of soft dorsal. Caudal rounded, $\frac{2}{3}$ length of head. Lateral line tubes long, 23-24, lat. tr. $\frac{7}{10}$.

Colour. The following description is supplied by Mr. Robinson: Fins, head, and body mottled brown and yellowish, stomach below gills and ventrals scarlet, stomach behind ventrals slightly tinged with red, ventrals tinged with red, especially at the base, fringe of gills near belly reddish tinge.

Three specimens, 177 mm., 179 mm., 168 mm. in length respectively, the two largest from Mr. Romer Robinson, Natal, the smallest from Durban Museum.

This species differs from *S. natalensis* in several particulars, the most obvious of which is the relative length of the last two spines.

SCORPÆNA SCROFA, L.

Teeth, a villiform band on each jaw, a narrow chevron-shaped band on vomer, and a few on upper end of palatines. Depth of body 3 times in total length excluding caudal, length of head $2\frac{1}{2}$ times. Snout $1\frac{1}{2}$ times diameter of eye, which is $4\frac{2}{3}$ times in length of head; interorbital width $1\frac{1}{2}$ times diameter of eye. Head scaleless and smooth, width $\frac{7}{10}$ its length; maxillary reaches to vertical of posterior half of orbits; orbital tentacles about $\frac{1}{2}$ diameter of eye, interorbital space deeply concave; vertex with a quadrangular depression broader than long, bounded by a spinate ridge on each side proceeding from middle of posterior margin of orbits to

operculum and ending in a spine; orbital ridge spinate and crossing this depression and ending in a strong spine; a transverse depression before orbits in front of which the snout forms a bony knob between anterior nostrils with a strong spine on either side to the rear; preorbital with 3 irregular spines on its lower margin and with a spinate ridge proceeding from its anterior margin through the base of these spines and across the cheek to the upper preopercular spine; preoperculum with 3 spines, operculum with 2; a strong spine on shoulder girdle above base of pectoral fin; a tubercle on chin at symphysis of lower jaw.

Dorsal xii 10; spines strong, deeply notched anteriorly, 3rd spine longest, a little more than $\frac{1}{2}$ height of body, and $\frac{2}{3}$ length of head, the following spines decrease in length to the 11th, which is $\frac{1}{3}$ the height of the last, forming a notch between spinous and soft portions of the fin; soft dorsal slightly higher than spinous. Pectorals viii 10; upper rays longest and branched, lower rays simple, $\frac{3}{4}$ length of head. Ventrals nearly $\frac{2}{3}$ length of head. Anal iii 5; spines strong, 3rd slightly longer than 2nd and about $\frac{3}{4}$ height of longest spine of dorsal and $\frac{7}{10}$ length of head; soft rays about $1\frac{1}{2}$ times height of those of soft dorsal. Caudal slightly rounded, $\frac{7}{10}$ length of head, rays divided. Lat. l. 21, sc. $41\frac{5}{4}$.

Colour (of preserved specimen), body dark mottled grey with black dots, dorsal, caudal, and anal fins with black spots.

One specimen, 263 mm. in length, from Durban Museum.

Most readily distinguishable from *S. natalensis* by larger eye, and from *S. durbanensis* by length of last spine of dorsal.

FAMILY TRICHIURIDÆ.

TRICHIURUS HAUMELA, Forsk.

Depth of body $14\frac{1}{2}$ times in total length including tail, length of head $7\frac{1}{5}$ times. Snout $2\frac{1}{3}$ times diameter of eye, which is slightly less than interorbital width and $6\frac{1}{10}$ times in length of head; height of head $\frac{2}{3}$ its length. Eyes situated high up touching profile and less than half the depth of the head where they are situated; interorbital space flat, dorsal profile between upper surface of eye and end of snout slightly concave; lower jaw considerably prolonged beyond upper, maxillary reaches to vertical of posterior half of eyes, distance from eye to upper jaw about $\frac{2}{3}$ diameter of orbit.

Dorsal 128 ; commences over hind margin of preoperculum, rays weak and filamentous, low anteriorly, the highest which are in the posterior half of the body about $\frac{2}{5}$ length of head. Pectorals nearly $\frac{2}{5}$ length of head. No ventrals. Anal in the form of about 68 free spines which are minute but distinct. No caudal fin, the tail tapering to a point at a distance rather more than the length of the head from last ray of dorsal. Lateral line passes downwards behind pectorals to lower third of side.

Colour (of preserved specimen), silvery with a large black blotch about middle of body passing through dorsal rays ; dorsal and pectorals light-coloured with dark extremities, caudal black.

One specimen, 842 mm. in length, including tail, from Mr. Romer Robinson, Natal.

FAMILY CARANGIDÆ.

CARANX ROTTLERI, Bl.

Teeth, villiform on upper jaw with an outer row of rather widely separated conical ones ; in 2 or 3 rows at symphysis of lower jaw with a single lateral row ; teeth on vomer palatines and tongue. Depth of body $3\frac{3}{5}$ times in total length excluding caudal, length of head nearly 4 times. Snout, diameter of eye and interorbital width are equal and a little more than $3\frac{1}{5}$ times in length of head. Eye with a broad anterior and posterior adipose lid, both covering a portion of the pupil ; greatest width of head slightly more than $\frac{1}{2}$ its length, its height equals the length behind anterior margin of eye ; lower jaw longer than upper, maxillary reaches to vertical of middle of eye ; there is a gradual ascent from the snout to the origin of the dorsal fin, and the dorsal and abdominal profiles are about equally convex.

Dorsal viii, i 10, ix ; spines of first dorsal moderately strong, 3rd spine highest and nearly $\frac{2}{5}$ height of body ; anterior soft rays of second dorsal about $\frac{1}{2}$ height of body, with 9 detached rays posteriorly. Pectorals falciform and $1\frac{1}{5}$ times length of head, reaching to about 20th plate on lateral line. Ventrals about $\frac{1}{2}$ length of head. Anal ii, i 8, viii ; similar in form to soft dorsal but slightly lower and with 8 free posterior rays. Caudal deeply forked. An oval patch of scales on the central line in front of ventral fins, the breast otherwise being scaleless. Lateral line makes a short strong curve anteriorly, the height of which equals $\frac{1}{2}$ its length, becoming

straight below middle of first dorsal fin where wide plates commence, the highest slightly more than $\frac{1}{2}$ height of body, they are most strongly keeled over the free portion and base of tail; caudal peduncle strongly depressed. Scutes 54.

Colour (of preserved specimen), dark brown on back, lighter and with a yellowish tint below; a black spot on operculum, tip of dorsal fin and posterior edge of caudal black.

One specimen, 193 mm. in length, from Durban.

CARANX CILIARIS, Bl.

Teeth, in villiform bands on jaws; teeth on vomer, palatines, and tongue. Depth of body about $1\frac{1}{3}$ times in total length excluding caudal, length of head about 3 times. Snout slightly longer than diameter of eye, which is $3\frac{1}{5}$ to $3\frac{1}{3}$ times in length of head and about equal to the interorbital width. Eyes without adipose lids; lower jaw projects slightly beyond upper, maxillary reaches to vertical of anterior third of eye; greatest height of preorbital nearly equals diameter of eye; width of opercle nearly $\frac{1}{2}$ its height; profile of head and snout rounded, with a swelling opposite the eyes causing a slight concavity above and below them.

Dorsal vi, i 19; spines of 1st dorsal rudimentary; soft dorsal commences at the most elevated point of the back, and has its first 5 or 6 rays very elongate and filamentary. Pectorals slightly longer than head. Ventrals about $\frac{3}{5}$ length of head, reaching to about spines of anal. Anal ii, i 16; anterior soft rays elongate and filamentary similar to those of soft dorsal. Caudal deeply forked. Scales absent, except on lateral line which makes a bold curve anteriorly becoming straight below about middle of soft dorsal; about 12-16 more or less distinct scutes.

Colour (of preserved specimens), grey with a dark opercular spot, anterior rays of dorsal and anal dark and with a black spot at their base on dorsal fin.

Three specimens, 142 mm., 138 mm., 126 mm. in length respectively, from Durban Museum.

CARANX HIPPOS, L.

Teeth, in a villiform band in upper jaw, with an outer series of stronger ones; in a single series on lower jaw, and a canine on each side of symphysis; teeth on vomer, palatines, and tongue. Depth of body $2\frac{3}{5}$ to $2\frac{2}{3}$ times in total length excluding caudal, length of

head 3 to nearly $3\frac{1}{4}$ times. Snout $1\frac{1}{7}$ to $1\frac{1}{8}$ times diameter of eye, which is about 4 to $4\frac{1}{7}$ times in length of head and slightly less than interorbital width. Eye with a broad posterior adipose lid; greatest width of head about $\frac{1}{2}$ its length, its height nearly equals its length; lower jaw rather longer than upper, maxillary reaches to vertical of posterior third of eye; greatest depth of preorbital $\frac{1}{3}$ to $\frac{7}{8}$ diameter of eye.

Dorsal vii, i 20; 3rd spine longest, nearly $\frac{2}{3}$ length of head and about $\frac{1}{3}$ height of body; soft rays about $\frac{1}{2}$ height of body. Pectorals $1\frac{1}{2}$ times length of head. Ventrals nearly $\frac{1}{2}$ length of head. Anal ii, i 17; similar to and a little lower than soft dorsal. Caudal deeply forked, about as long as the head. Breast scaly. Lateral line strongly bent, the width of the curve being about $1\frac{2}{3}$ times in the straight portion, the latter begins in the vertical of 2nd or 3rd dorsal ray; scutes 32-33 well developed and distinct along the straight portion of the lateral line, the keeled plates being largest below last portion of dorsal fin.

Colour (of preserved specimens), brownish above, yellowish below; a small black spot on opercle just before commencement of lateral line, top of second dorsal black, anal with a grey tinge, posterior border of lobed caudal with a black edge.

Two specimens, one 268 mm. in length from Mr. Romer Robinson, Natal, the other 187 mm. in length procured in Durban market.

CARANX CARANGUS, Bl.

(King-fish.)

Teeth, in villiform band on upper jaw, with an outer series of enlarged ones; in a single series in the lower jaw some of the teeth in which are longer than the others; a pair of canines at symphysis of lower jaw; teeth on vomer, palatines, and tongue. Depth of body $2\frac{1}{3}$ to $2\frac{3}{4}$ times in total length excluding caudal, length of head $3\frac{2}{5}$ to $3\frac{1}{2}$ times. Snout $1\frac{1}{6}$ to $1\frac{1}{4}$ times diameter of eye, which equals interorbital width and is 4 times in length of head. Eye with a narrow posterior adipose lid; greatest width of head nearly $\frac{2}{3}$ its length, greatest height about equal to or a little greater than its length; lower jaw a little longer than upper, maxillary reaches to vertical of middle of eye; greatest depth of preorbital nearly equals diameter of eye.

Dorsal viii, i 22; 3rd spine longest, about $\frac{2}{3}$ length of head and about $\frac{1}{3}$ height of body; longest soft rays about $\frac{1}{3}$ length of head. Pectorals $1\frac{1}{4}$ to $1\frac{1}{3}$ times length of head. Ventrals about $\frac{1}{2}$ length of

head. Anal ii, i 18; similar to soft dorsal but lower. Caudal deeply forked, a little longer than head. Breast naked. Lateral line strongly bent, the width of arch $1\frac{3}{5}$ to $1\frac{1}{2}$ times in length of straight portion which latter begins below 6th ray of dorsal. Scutes 35–36, well developed and distinct on straight portion of lateral line, the keeled plates being largest below end of dorsal fin.

Colour (of preserved specimens), greyish; no opercular spot.

Three specimens, one 222 mm. in length from Durban Museum; the others, 239 mm., 160 mm. in length respectively, from Mr. Romer Robinson, Natal.

CARANX CHRYSOPHRYOIDES, Bleek.

Teeth, in narrow villiform bands on both jaws; teeth on vomer, palatines, and tongue. Depth of body nearly twice in total length excluding caudal, length of head a little less than 3 times. Snout $1\frac{1}{2}$ times diameter of eye, which is $4\frac{1}{4}$ times in length of head and $1\frac{1}{5}$ times in interorbital width; occipital crest well developed, snout bluntly obtuse, maxillary reaches to vertical of anterior third of eye; depth of preorbital $1\frac{3}{10}$ times diameter of eye and partly concealing maxillary bone; height of head equals or slightly exceeds its length.

Dorsal viii, i 20; spines of first dorsal weak, the 2nd and 3rd spines longest and about $\frac{1}{4}$ length of head, the last two spines are separate from the rest. Anterior rays of soft dorsal produced and a little over $\frac{1}{2}$ height of body. Pectorals $1\frac{1}{3}$ times length of head and $\frac{2}{3}$ total length of body excluding caudal. Ventrals nearly $\frac{1}{2}$ length of head. Anal ii, i 16; similar to soft dorsal and about the same height. Caudal deeply forked, slightly longer than head. Breast from behind ventral fins and as high as base of pectorals scaleless; lateral line parallel to dorsal profile and becomes straight below posterior half of soft dorsal. Scutes 30 (circa), feeble except the last few at base of caudal.

Colour (of preserved specimen), grey; opercular spot black, soft dorsal anal and posterior margin of caudal slightly tinged with black.

One specimen, 212 mm. in length, from Mr. Romer Robinson, Natal; caught in Durban Bay.

CARANX DJEDDABA, Bl.

Teeth, a single series of fine teeth on each jaw; teeth on vomer and palatines, and a bony plate on tongue which is also finely

toothed. Depth of body $2\frac{3}{5}$ to $2\frac{7}{10}$ times in total length excluding caudal, length of head 4 times. Snout a little longer than diameter of eye, which is slightly less than interorbital width and about 4 times in length of head; greatest width of head about half its length, greatest height a little less than its length; eyes with a broad posterior adipose lid which extends slightly over the pupil; lower jaw a little longer than upper, maxillary reaches to vertical of anterior third of orbits; greatest width of preorbital about $\frac{3}{4}$ diameter of eye.

Dorsal vii-viii, i 22-23; spines of first dorsal not very strong, 3rd spine longest and about $\frac{3}{10}$ height of body; anterior rays of soft dorsal $\frac{2}{3}$ height of body. Pectorals nearly $\frac{1}{3}$ length of body, reaching to above 5th anal ray. Ventrals about $\frac{1}{2}$ length of head. Anal ii, i 19; similar to soft dorsal but a little lower. Caudal deeply forked, $1\frac{1}{6}$ times length of head. Breast scaly. Scales on cheeks, upper margin of operculum, top of head, and on base of soft dorsal and anal fins. Lateral line curved anteriorly, becoming straight below 2nd or 3rd ray of soft dorsal, height of arch about $\frac{1}{3}$ its length which is $2\frac{1}{4}$ to $2\frac{1}{2}$ times in the length of the straight portion; keeled plates commence on first scale of straight portion of lateral line and continue the whole of its length; they are well developed, the largest occur below posterior half of soft dorsal where they are nearly $\frac{1}{8}$ the height of the body. Scutes 45-52.

Colour (of preserved specimens), dark grey on top, light with a yellowish tinge below; a black spot on operculum, first dorsal and posterior border of upper lobe of caudal blackish, upper edge of posterior portion of soft dorsal tinged with grey. In the fresh state the fish is silvery, greenish on back.

Two specimens, 190 mm., 172 mm. in length respectively, from Mr. Romer Robinson, Natal.

CARANX CALLA, C. and V.

Teeth, in a single series on both jaws; teeth on vomer, palatines, and tongue. Depth of body $2\frac{3}{4}$ times in total length excluding caudal, length of head $3\frac{1}{3}$ times. Snout equals interorbital width and is slightly less than diameter of eye, which is $3\frac{1}{2}$ times in length of head; greatest width of head a little more than $\frac{1}{2}$ its length, greatest height nearly equals its length. Eye with narrow anterior and broad posterior adipose lids; lower jaw slightly longer than upper, maxillary reaches to vertical of anterior third of eye; greatest depth of preorbital equals nearly $\frac{2}{3}$ diameter of eye; abdominal profile more convex than that of the back.

Dorsal viii, i 24; spines of first dorsal weak, 2nd and 3rd longest, $\frac{2}{3}$ length of head and $\frac{3}{4}$ height of anterior rays of soft dorsal. Pectorals falciform, nearly as long as head. Ventrals a little more than $\frac{1}{3}$ length of head. Anal ii, i 19; soft rays commence below 6th or 7th ray of soft dorsal, similar to soft dorsal but not so high. Caudal forked, $1\frac{1}{2}$ times in length of head. Scales on breast and body, a few on cheeks below eye, a well-developed sheath on dorsal and anal fins. Lateral line strongly curved anteriorly, becoming straight about the vertical of origin of soft dorsal; scutes 45, well developed and occupying the whole of the straight portion.

Colour (of preserved specimen), bluish above, silvery below; a black spot on opercle; dorsal covered with minute black specks, spinous portion dark, soft portion edged with black.

One specimen, 126 mm. in length, from Mr. Romer Robinson, Natal.

CARANGICHTHYS TYPUS, Bleek.

Teeth, in narrow bands on both jaws, the outer row rather larger than inner; teeth on vomer, palatines, and tongue. Depth of body nearly twice in total length excluding caudal, length of head nearly 3 times. Snout $1\frac{1}{2}$ times diameter of eye, which is nearly 4 times in length of head and slightly less than the interorbital width; greatest width of head nearly $\frac{1}{2}$ its length, greatest depth slightly less than its length; lower jaw a little longer than upper, maxillary reaches to vertical of middle of eye; no adipose lids, but the skin slightly projects over the eye; vertical margin of preoperculum denticulated, with stronger denticulations at the angle, which is rounded.

Dorsal viii, i 18; spines of first dorsal weak, 3rd and 4th spines longest and nearly $\frac{2}{3}$ length of head; anterior rays of 2nd dorsal prolonged and about $\frac{1}{2}$ height of body. Pectorals about $\frac{7}{8}$ length of head. Ventrals a little more than $\frac{2}{3}$ length of head, nearly reaching to anal spines. Anal ii, i 17; anterior rays elongated and filamentous, about same height as soft dorsal. Caudal deeply forked, about as long as head. Breast scaleless. Scales on cheeks, preopercle, upper part of operculum, top of head, and body. Lateral line makes a long curve to below middle of soft dorsal, where it becomes straight and is armed with keeled scales which are strongest on the free portion of the tail. Scutes 25.

Colour (of preserved specimen), grey, a dark spot on operculum, dorsal and anal fins covered with minute brown specks, posterior

half of caudal lobes of a dark shade and covered with similar specks.

One specimen, 114 mm. in length, from Durban Museum.

PSETTUS FALCIFORMIS, Lacép.

Teeth, villiform, in many rows on jaws, numerous on vomer, palatines, and tongue. Depth of body $1\frac{3}{5}$ times in total length excluding caudal, length of head $3\frac{1}{4}$ times. Snout $\frac{1}{2}$ diameter of eye, which is $2\frac{2}{7}$ times in length of head, interorbital width $\frac{2}{3}$ diameter of eye. Cleft of mouth oblique, lower jaw projects beyond upper, maxillary reaches to vertical of first 3rd of orbits; angle of preoperculum slightly serrated; greatest depth of preorbital equals $\frac{1}{3}$ diameter of eye.

Dorsal viii 28; spines strong and very low; anterior soft rays produced, $\frac{3}{4}$ length of head and 4 times as high as rays of posterior two-thirds of fin. Pectorals $\frac{3}{5}$ length of head. Ventrals very small, $\frac{1}{6}$ length of head, the spine longest, the soft rays being minute. Anal iii 29, spines moderate; anterior soft rays slightly higher than anterior rays of soft dorsal, the succeeding rays shortening to the last, which is $\frac{1}{4}$ height of anterior rays. Caudal deeply emarginate, slightly longer than head. Lateral line forms a long arch, becoming straight on free portion of tail. Lat. l. 47 + 4.

Colour (of preserved specimen), silvery, dark above; anterior rays of soft dorsal and anal black at extremity, caudal yellow with dark edge.

One specimen, 134 mm. in length, from Mr. Romer Robinson, Natal.

SERIOLICHTHYS BIPINNULATUS, Q. and G.

Teeth, villiform on jaws, vomer, palatines, and tongue. Depth of body $4\frac{1}{6}$ times in total length excluding caudal, length of head nearly 4 times. Snout $2\frac{1}{10}$ times diameter of eye, which is $1\frac{1}{5}$ times in interorbital width and $5\frac{1}{4}$ times in length of head. Body elongated and compressed, its greatest depth opposite origin of soft dorsal; snout long and pointed, lower jaw longer than upper, maxillary reaches to vertical of about midway between nostril and anterior margin of eye; gill-opening cleft as far forward as maxillary.

Dorsal vi, i 25, 2; spines of 1st dorsal weak, interspinous membranes deeply cleft, 3rd and 4th spines longest and about equal to diameter of eye. Anterior portion of 2nd dorsal highest, nearly

$\frac{2}{3}$ length of head, succeeding rays decrease in length to 10th, the remainder being subequal but with their branched extremities produced beyond the connecting membranes; at a short distance behind the soft dorsal is a finlet composed of two rays, the posterior one rather elongated and extending almost to base of caudal. Pectorals short, $\frac{1}{2}$ length of head. Ventrals about equal in length to pectorals. Anal i 17, 2; similar to soft dorsal but not so high, and with a similar finlet posteriorly. Caudal deeply forked, $1\frac{3}{10}$ times length of head. Scales on cheeks, behind eyes, upper edge of operculum and on body; a narrow band along base of soft dorsal as far as 10th ray, wider anteriorly, and a similar band on base of anal. Lat. l. 105, lat. tr. $\frac{10}{8}$.

Colour (of preserved specimen), uniform dark brown, caudal light-coloured.

One specimen, 429 mm. in length, from Mr. Romer Robinson, Natal.

As compared with description of *S. bipinnulatus* the eye is much smaller, and maxillary does not reach to front margin of eye, but it probably is identical with this species.

FAMILY SCOMBRIDÆ.

SCOMBER COLIAS, Gmel.

Teeth, in a single row on both jaws; minute on palate. Depth of body $5\frac{3}{5}$ times in total length excluding caudal, length of head nearly $3\frac{1}{2}$ times. Snout nearly $1\frac{1}{3}$ times diameter of eye, which equals interorbital width and is $4\frac{1}{5}$ times in length of head; greatest width of head $2\frac{3}{10}$ times in its length. Eyes with narrow anterior and broad posterior adipose lids; interorbital space flat with a translucent oblong space between and slightly in front of the eyes; lower jaw slightly longer than upper, maxillary reaches to vertical of anterior 3rd of eye, and is hidden by preorbital; preoperculum broad, the space between the angle and the anterior ridge is marked by striations diverging from a common centre.

Dorsal x, i 11, v; spines of first dorsal weak and receivable into a groove; 2nd and 3rd spines longest, not quite $\frac{1}{2}$ length of head, succeeding spines rapidly decreasing, the last spine separate and almost concealed; distance between the two dorsals equals the height of the longest spine. Second dorsal low, upper edge slightly

concave, anterior soft rays nearly $\frac{1}{2}$ height of longest spine of 1st dorsal; finlets commence just behind the fin and are opposite and similar to those of anal. Pectorals nearly $\frac{1}{2}$ length of head. Ventrals a little more than $\frac{2}{3}$ length of head. Anal i, i 11, v; similar to soft dorsal and about the same height. Caudal deeply forked, $\frac{2}{3}$ length of head. Scales on upper portion of operculum and top of head as far as the eyes. Lat. l. sc. 200 (circa).

Colour (of preserved specimen), greenish black on upper half of body, with about 30 wavy chevron-like black transverse streaks; lower part of body light-coloured; body and fins covered with numerous minute dark brown specks, lower half of caudal brown with an oblique white streak at base of each lobe.

One specimen, 184 mm. in length, from Mr. Romer Robinson, Natal.

SCOMBER MICROLEPIDOTUS, Rüpp.

Teeth, in a single series, none on vomer or palate. Depth of body slightly greater than length of head and nearly $3\frac{3}{4}$ times in total length excluding caudal. Snout equals the interorbital width and slightly longer than diameter of eye, which is nearly 4 times in length of head; jaws about equal, cleft of mouth deep, maxillary concealed by preorbital; length of preorbital nearly $\frac{1}{2}$ that of the head, its greatest depth a little more than $\frac{2}{3}$ diameter of eye; interorbital space flat.

Dorsal xi, i 11, v; spines of first dorsal weak, receivable into a groove; 2nd spine longest and nearly $\frac{2}{3}$ length of head, remainder decrease rapidly in length posteriorly. Distance between 1st and 2nd dorsals equals about $\frac{1}{2}$ the length of the base of the latter; the upper edge of second dorsal concave, anterior ray about $\frac{1}{3}$ length of head; finlets commence just behind second dorsal and are similar and opposite to those of anal. Pectorals short, slightly more than $\frac{1}{2}$ length of head. Ventrals nearly $\frac{1}{2}$ length of head. Anal i 11, v; similar to soft dorsal and about same height. Caudal with deeply pointed lobes, about $\frac{1}{3}$ length of head. Scales rather larger below pectoral fin, minute scales on soft dorsal and anal fins. Lateral line slightly curved; sc. 150 (circa).

Colour (of preserved specimen), dark bluish brown above, yellowish below median line; dorsal pectoral and caudal fins covered with minute dark specks, a row of dark spots along base of caudal.

One specimen, 155 mm. in length, from Mr. Romer Robinson, Natal; apparently an immature specimen.

CYBIUM COMMERSONII, Lacép.

Teeth, strong triangular teeth on each jaw, the lateral ones longest; a patch on vomer and a band on palatines. Depth of body a little more than $4\frac{3}{4}$ times in total length excluding caudal, length of head $4\frac{1}{7}$ times. Snout $1\frac{3}{5}$ times diameter of eye, which is $1\frac{1}{2}$ times in interorbital width and $5\frac{1}{10}$ times in length of head; greatest width of head $\frac{2}{5}$, greatest height $\frac{2}{3}$ its length. Maxillary reaches to vertical of posterior margin of orbits; posterior border of preoperculum slightly emarginate, and the angle rounded and very slightly produced.

Dorsal xvi, iii 13, 10 (finlets); spines of 1st dorsal weak ending in thin filamentous points beyond the membrane, which is notched; 2nd dorsal highest in front with its upper margin concave, commencing a little in advance of anal, longest rays $\frac{2}{5}$ length of head. Pectorals $\frac{3}{5}$ length of head. Ventrals small, about $\frac{1}{4}$ length of head. Anal iii 13, 10 (finlets); commences a little behind soft dorsal which it resembles. Caudal longer than head, with pointed lobes, each with a raised oblique ridge across base. Lateral line undulating, situated in upper 4th of body as far as middle of soft dorsal, where it makes a strong curve downwards and continues in a wavy line to caudal, where it ends in a raised keel between the bases of either lobe.

Colour, dark bluish on back shading off to silver on belly, a series of irregular dark spots of fair size on sides above belly, anal fin dark bluish at base shading off to white at tip, pectorals white with dark lines, spinous dorsal transparent posteriorly, dark anteriorly, soft dorsal dark; the vertical fins are covered with minute brownish spots in the preserved specimen.

One specimen, 320 mm. in length, from Mr. Romer Robinson, Natal, who kindly supplies a note of the colour when alive. Much larger specimens are common at Durban, and this is apparently a comparatively young and immature form.

ECHENEIS REMORA, L.

Depth of body 7 times in total length excluding caudal; length of head including disk $2\frac{7}{10}$ times, without disk a little more than 4 times; breadth of body between pectorals $5\frac{3}{5}$ times. Eye $3\frac{1}{2}$ times in distance from end of snout and $7\frac{1}{8}$ times in length of head. Eyes transversely oval, situated about the centre of the length of the head, and the same distance apart superiorly and inferiorly. Lower

jaw longer than upper, maxillary reaches to vertical of anterior margin of orbits.

Dorsal 17, 19. Disk elliptical, rather broader posteriorly than anteriorly; length twice the breadth and $2\frac{1}{3}$ times in total length excluding caudal; 17 transverse laminae each with a toothed posterior margin, the teeth being in 3 rows, a smooth elevation dividing the disk along central line; the most anterior laminae are directed forwards, the most posterior slightly backwards, the remainder nearly transverse; external to the disk is a moderately wide fleshy membrane which posteriorly extends nearly to tip of pectorals and anteriorly does not reach to point of snout. The 2nd dorsal is situated opposite the anal, commencing midway between last lamina of disk and base of caudal and highest in front, the anterior rays being about $\frac{2}{3}$ length of head. Pectorals situated behind posterior upper angle of operculum and opposite last 3rd (14th lamina) of disk, nearly $\frac{2}{3}$ length of head. Ventrals nearly $\frac{3}{5}$ length of head, their length about equals the distance between root of pectorals and anterior margin of eye. Anal 17, similar to soft dorsal. Caudal deeply emarginate, slightly more than $\frac{3}{4}$ length of head.

Colour (of preserved specimen), uniform brown; the specimen is covered with dried mucous, which gives it a bluish tinge.

One specimen, 163 mm. in length, from Mr. Romer Robinson, Natal.

ECHENEIS CLYPEATA, Günth.

Teeth, an outer row of widely set strong teeth on anterior part of lower jaw, and on vomer. Depth of body 8 times in total length excluding caudal; length of head including disk $2\frac{1}{3}$ times, without disk $3\frac{9}{10}$ times; breadth of body between pectorals $5\frac{3}{5}$ times. Eyes about 6 diameters from end of snout and 10 times in length of head; situated about the centre of the length of head and 8 times their diameter apart. Lower jaw longer than upper, maxillary reaches to the vertical from the 2nd lamina.

Dorsal 13, 17; disk elliptical, broadest in centre, width nearly $\frac{2}{3}$ its length, which is about $2\frac{1}{3}$ times in total length excluding caudal and extending backwards nearly to tip of pectorals; 13 transverse laminae each with two rows of teeth on the posterior margin, a smooth elevation dividing the disk along central line, anterior laminae directed slightly forwards, central nearly transverse, posterior slightly backwards; a wide fleshy membranaceous margin to disk. The 2nd dorsal is situated in the posterior 3rd of the body, com-

mening behind origin of anal, and is shorter and slightly lower than the anal. Pectorals rounded, $\frac{2}{3}$ length of head, originating opposite 9th and 10th laminae of disk. Ventrals $\frac{2}{3}$ length of head, their length less than the distance between root of pectorals and anterior margin of eye; they are inserted below root of pectorals. Anal 22; similar to soft dorsal. Caudal subtruncate, angles rounded, $\frac{2}{3}$ length of head.

Colour (of preserved specimen), whitish brown.

One specimen, 174 mm. in length, from Durban.

ZEUS CAPENSIS, C. and V.

Depth of body twice in total length excluding caudal, length of head $2\frac{2}{3}$ times. Snout $1\frac{7}{10}$ times diameter of eye, which is a little more than $1\frac{1}{2}$ times interorbital width and $3\frac{1}{5}$ times in length of head. Cleft of mouth very oblique, lower jaw projects beyond upper, maxillary reaches to vertical of posterior nostril; 13 bony plates, each with a single spine, along base of soft dorsal, 11 along base of anal; 8 bony plates between ventral and anal, the first being median in position the others paired one on each side.

Dorsal x 23; spinous membranes filamentous; 4th spine longest, nearly $\frac{1}{2}$ length of head, remaining spines decreasing posteriorly, the last two being very short; soft rays very short anteriorly, increasing posteriorly to $\frac{3}{5}$ height of longest spine. Pectorals nearly $\frac{1}{2}$ length of head. Ventrals over $\frac{2}{3}$ length of head, reaching to origin of anal. Anal iv 21; 2nd spine longest, about $\frac{3}{5}$ height of longest spine of dorsal; soft rays low anteriorly, increasing posteriorly to about same height as longest rays of soft dorsal. Caudal nearly $\frac{2}{3}$ length of head, truncate. Scales small.

Colour (of preserved specimen), brownish white; a dark spot a little smaller than eye occurs on the body below the posterior spines and just over the lateral line.

One specimen, 293 mm. in length, from Durban Museum.

FAMILY TRACHINIDÆ.

LATILUS ARGENTATUS, C. and V.

Teeth, canines on posterior half of each jaw, the last tooth on upper jaw strongest. Depth of body about $3\frac{1}{2}$ times in total length excluding caudal and about equal to length of head. Snout about

$1\frac{1}{2}$ times diameter of eye, which is about $1\frac{1}{4}$ times in interorbital width and a little over 4 to $4\frac{2}{5}$ times in length of head. Profile of head flat on top with a bulge at anterior upper angle of orbits, from which it descends rapidly to point of snout at an angle of about 45° . Preorbital, least depth a little greater than diameter of eye. Preoperculum finely serrated, more coarsely so at angle; operculum with a blunt inconspicuous spine; cleft of mouth slightly oblique; maxillary reaches to vertical of posterior nostril; jaws equal; eyes prominent and placed high in the head; a ridge on nape from orbits to origin of dorsal.

Dorsal vii 14; commences above base of pectorals, spines weak; soft portion of fin higher than spinous, posterior rays longest and more than $\frac{1}{2}$ length of head. Pectorals pointed, 5th and 6th rays longest, nearly as long as head and reaching to vent, rays divided. Ventrals a little more than $\frac{1}{2}$ length of head. Anal ii 12; similar to soft dorsal but not so high. Caudal truncate, $\frac{2}{3}$ to $\frac{3}{4}$ length of head. Scales moderately large, ciliated and extending over opercles and cheeks. Lat. l. 60–63, lat. tr. $\frac{7-8}{14-16}$.

Colour (of preserved specimens), uniform whitish-brown, the dorsal crest black, as is also the basal part of the dorsal fin.

Two specimens, 325 mm. and 380 mm. in length respectively, procured by ss. *Pieter Faure* in 46–55 fms. mud, Tugela mouth, N. by W. 18 miles.

FAMILY PSEUDOCROMIDES.

OPISTHOGNATHUS MUSCATENSIS, Blgr.

Teeth, small, in two or three irregular rows in front and a single row behind. Depth of body slightly over 4 times in total length excluding caudal, length of head $3\frac{1}{2}$ times. Snout a little greater than interorbital width and $\frac{3}{4}$ diameter of eye, which is nearly 4 times in length of head and placed high up and far forward. Snout obtuse, cleft of mouth reaches much beyond posterior margin of eye, maxillary truncated and produced to $1\frac{1}{2}$ times diameter of eye behind orbits. A pair of short tubercles on snout above symphysis of jaw; head covered with minute pores; greatest width of head nearly $\frac{2}{3}$ its length, greatest height equals $\frac{7}{10}$ length; gill-openings wide, almost reaching to nape.

Dorsal 26 (xi 15?); spines very weak and about same length as soft rays. Pectorals 19, broad and with rounded edge, $\frac{1}{2}$ length of

head. Ventrals $\frac{2}{3}$ length of head. Anal 17, similar to soft dorsal. Caudal rounded, $\frac{7}{10}$ length of head.

Colour (of preserved specimen), brown marbled with darker shades, vertical fins dark with irregular black patches, a large oval black blotch on dorsal above pectorals.

One specimen, 319 mm. in length, from Durban Museum.

If Gill's subdivisions of this genus are accepted (Proc. Ac. Nat. Sci., Phila., 1862, p. 241), it should be placed under the genus *Gnathypops*, which he separates from *Opisthognathus* as having the maxillary of medium length and truncate behind, not extending to edge of opercle, caudal moderate, rounded behind.

FAMILY PEDICULATI.

ANTENNARIUS HISPIDUS, Schn.

Teeth, cardiform on jaws and palate. Eyes high up, 2 diameters from point of snout; interorbital space $3\frac{1}{2}$ times diameter of eye; mouth subvertical, lower jaw a little compressed and width of gape exceeds that of cleft.

D. iii 12; A. 7; P. 10. Anterior dorsal spine about same length as 2nd, ending in a large tassel-like lobe about $\frac{1}{2}$ the length of the spine, with numerous flattened short tentacles which sometimes have ciliated edges; 3rd spine equals $\frac{2}{3}$ length of 1st; both 2nd and 3rd spines with short tentacles; no membrane between 3rd spine and soft dorsal. Skin covered with rough spines, which are bifid or trifid; a few cutaneous filaments which are longer and ciliated on chin.

Colour (of preserved specimen), body with dark reticulating lines; dark cross-bars on vertical fins, about five on soft dorsal, three on anal, and five on caudal.

One specimen, 72 mm. in length, from Durban Museum.

ANTENNARIUS PINNICEPS, Commers.

Teeth, cardiform on jaws and palatines. Eyes high up, small, oval, $2\frac{1}{2}$ diameters from end of snout and $2\frac{1}{5}$ times in interorbital width; mouth vertical.

D. iii 12; A. 7; P. 10. Anterior dorsal spine same length as 2nd, 3 times diameter of eye in length and terminating in 3 lanceolate flaps, the 2 outer of which are as long as the spine, the inner about

half the length; 3rd spine nearly as long as the other two, and with a flap of skin posteriorly but not reaching to soft dorsal. Skin covered with rough spines which are bifid, and with some small cutaneous filaments.

Colour (of preserved specimen), brown streaked and spotted with black, fins lighter brown streaked and spotted with black, belly without markings.

One specimen, 118 mm. in length, from Durban Museum.

FAMILY COTTIDÆ.

PLATYCEPHALUS MALABARICUS, C. and V.

Teeth, villiform on jaws, in two parallel bands on vomer, a long narrow band on palatines. Depth of body $8\frac{1}{4}$ times in total length excluding caudal, length of head $3\frac{1}{7}$ to $3\frac{1}{2}$ times. Snout $1\frac{3}{4}$ to twice diameter of eye, which is $5\frac{1}{6}$ to $5\frac{1}{3}$ times in length of head; interorbital width $\frac{2}{3}$ to $\frac{3}{4}$ diameter of eye; width of head between preopercular spines equals $\frac{3}{5}$ to $\frac{3}{4}$ its length; interorbital space slightly concave; maxillary reaches to vertical of anterior third of orbits. Supraorbital margin with 6 or 7 teeth, the ridge extending from it to occiput with 1 or 2 teeth; a bony ridge from posterior margin of eye to shoulder spine with 3 or 4 teeth; a strong spine at angle of preoperculum with a very small one at its base superiorly, and inferiorly a larger one directed downwards and backwards; a bony ridge across preorbital to preopercular spine, with 2 or 3 teeth; anterior nostril with a flap; a small spine above axilla.

Dorsal i, viii 12; spines weak, 4th longest and nearly $\frac{1}{2}$ length of head; 2nd dorsal anteriorly about as high as the 1st. Pectorals nearly $\frac{1}{2}$ length of head. Ventrals $\frac{3}{4}$ to $\frac{4}{5}$ length of head, reaching to anal. Anal 12; commencing below 2nd ray of 2nd dorsal, rays low. Caudal truncate, over $\frac{1}{2}$ length of head. Scales ctenoid, 8 rows between base of spinous dorsal and lateral line. Lat. l. 78, lat. tr. $1\frac{8}{4}$ (?).

Colour (of preserved specimens), uniform brown, lighter below.

Two specimens, 182 mm. and 215 mm. in length respectively, from Durban Museum.

FAMILY GOBIIDÆ.

GOBIUS GIURIS, B. H.

Teeth of outer series enlarged; no canines. Depth of body $5\frac{1}{2}$ to $5\frac{3}{5}$ times in total length excluding caudal, length of head $3\frac{1}{2}$ to $3\frac{1}{4}$ times. Snout $2\frac{1}{2}$ to $2\frac{7}{5}$ times diameter of eye, which is $8\frac{1}{3}$ to $7\frac{1}{2}$ times in length of head and $1\frac{1}{5}$ times in interorbital width; greatest width of head $\frac{2}{3}$ to $\frac{3}{5}$ its length, greatest depth about $\frac{2}{5}$. Interorbital space flat or very slightly concave; lower jaw projects beyond upper, maxillary reaches to vertical of anterior margin of eye.

Dorsal vi, i 9; spines flexible; 3rd spine of 1st dorsal longest, about $\frac{1}{2}$ length of head, succeeding spines shortening. The 2nd dorsal has the soft rays about same height as longest spine of 1st dorsal, and the posterior rays reach nearly to base of caudal. Pectorals $\frac{2}{3}$ length of head and same length as ventrals. Anal i 8; similar to soft dorsal and about the same height. Caudal pointed, $\frac{4}{5}$ length of head. Scales, vert. 11-12; extend over head almost to eyes where they are very much smaller than those on the rest of the body; 20 rows before base of 1st dorsal fin. Scales on body comparatively large, angular and ctenoid.

Colour (of preserved specimens), yellowish brown, with dark markings on head and irregular dark blotches on body, vertical fins spotted.

Two specimens, 263 mm. and 218 mm. in length, respectively, from Mr. Romer Robinson, Natal; from Umgeni Lagoon, Durban.

These specimens do not agree exactly with Day's *G. giuris*, differing in the number of scales before the dorsal; nor with *G. giuris* of Kner (Novara), which is provided with "einem deutlich vortretenden stumpfen dorne" on the preoperculum, not observed in either of our specimens.

ELEOTRIS FUSCA, Schn.

Teeth, in villiform rows, those of outer row in upper jaw larger and further apart; 4 or 5 large teeth anteriorly in lower jaw, and laterally some pointed teeth in outer row larger than remainder. Depth of body $4\frac{2}{5}$ times in total length excluding caudal, length of head $3\frac{3}{10}$ times. Snout $1\frac{1}{3}$ times diameter of eye, which is $6\frac{5}{8}$ times in length of head and $2\frac{1}{8}$ times in interorbital width. Head depressed, greatest width about equal to its depth and $\frac{4}{5}$ its length; lower jaw slightly longer than upper, maxillary reaches to vertical of anterior third of orbits; anterior nostril with a pointed flap; angle

of preoperculum rounded, with a short spine pointing downwards and slightly forwards.

Dorsal vi, i. 8; commencing about midway between origin of ventrals and anus. Spinous dorsal lower than the soft; the spines weak, about $\frac{1}{2}$ depth of body and $\frac{2}{5}$ length of head; soft dorsal lower anteriorly, the posterior rays $\frac{1}{2}$ length of head. Pectorals broad and rounded, $\frac{4}{5}$ length of head. Ventrals i 5; nearly $\frac{2}{3}$ length of head. Anal i 8; commences below origin of soft dorsal, very similar to it and about the same height. Caudal wedge-shaped, $\frac{1}{5}$ length of head. Scales on body feebly ctenoid, those on upper surface of head minute and extending to between the orbits; 16 rows between anterior extremities of 2nd dorsal and anal fins, 14 rows between their posterior extremities. Lat. l. 63 (approx.).

Colour (of preserved specimen), uniform dark brown.

One specimen, 136 mm. in length, from Durban Museum.

FAMILY SPHYRÆNIDÆ.

SPHYRÆNA COMMERSOHNII, C. and V.

Teeth, small fine teeth on upper jaw, with a large fang accompanied by 2 smaller teeth anteriorly and 1 posteriorly on each side of symphysis; a row of strong pointed teeth on lower jaw with 1 anterior central fang directed backwards at symphysis; large fangs in front on palatines followed by a single row of smaller teeth; minute teeth on tongue. Depth of body nearly 7 times in total length excluding caudal, length of head $3\frac{1}{10}$ times; breadth of head $\frac{4}{5}$ its height, which equals the postorbital length. Snout $2\frac{3}{4}$ times diameter of eye, which equals the interorbital width and is $5\frac{3}{4}$ times in length of head. Lower jaw longer than upper and terminating in a fleshy knob, maxillary reaches to vertical of anterior nostril; angle of preopercle slightly rounded; opercle ends in a single point; orbital ring and margin of preorbital striated.

Dorsal v, i 9; 1st dorsal commences behind extremity of pectorals and slightly in front of extremity of ventrals, situated in middle of body excluding caudal; spines weak, the 2nd is the longest and about $\frac{1}{4}$ length of head; the interspace between the two dorsal fins equals $\frac{1}{5}$ of the total length of the body excluding caudal. Anterior rays of soft dorsal about $1\frac{1}{2}$ times length of longest spine of 1st dorsal, the remainder decreasing in length except the last, which is a little produced. Pectorals $\frac{3}{10}$ length of head. Ventrals inserted behind

middle of pectorals and rather shorter, the spine is $\frac{3}{4}$ the height of the adjacent ray. Anal i 9; situated below soft dorsal, similar and about the same height. Caudal forked, $\frac{3}{5}$ length of head. Scales, 6 rows between lateral line and base of dorsal; opercles scaly. Lat. l. 85.

Colour (of preserved specimen), greyish brown, light underneath; fins dark.

One specimen, 275 mm. in length, from Inner Harbour, Durban.

SPHYRÆNA AFRICANA, n. sp.

Teeth, small in upper jaw, a strong fang behind which is a smaller one on each side of symphysis; strong isolated teeth increasing in length posteriorly on lower jaw, with a single central fang directed backwards at symphysis, strong fangs on anterior part of palatines with smaller teeth posteriorly; a median band of minute teeth on tongue. Depth of body 7 times in total length excluding caudal, length of head a little more than 3 times. Snout $2\frac{3}{10}$ times diameter of eye, which equals interorbital width and is a little more than 5 times in length of head; height of head slightly more than $\frac{1}{3}$ its length, depth nearly $\frac{3}{10}$. Lower jaw projects beyond upper, with a slight obtuse conical protuberance in front; maxillary reaches to vertical of anterior margin of eye; preoperculum emarginate, angle rounded; operculum ends in a single point.

Dorsal v, i 9; the 1st dorsal commences behind or at extremity of pectorals and a little in advance of origin of ventrals, the interspace between the two dorsals is more than $\frac{1}{2}$ length of head and equals the length of head behind anterior margin of eye. Anterior spines of 1st dorsal nearly $\frac{3}{10}$ length of head, remainder successively decreasing; anterior rays of soft dorsal about equal in height to anterior spines of 1st dorsal, and upper edge of fin concave. Pectorals $\frac{2}{5}$ length of head. Ventrals $\frac{1}{3}$ length of head. Anal i 9; situated below soft dorsal, similar and about the same height. Caudal deeply forked, lower lobe longer than upper and $\frac{3}{5}$ length of head. Scales on opercles; 12 rows between lateral line and base of 1st dorsal fin. Lat. l. 108, lat. tr. $\frac{1}{3}\frac{3}{5}$.

Colour (of preserved specimen), numerous dark brown spots above, silvery below, each scale with a brown spot, lateral line dark brown.

One specimen, 203 mm. in length, from Mr. Romer Robinson, Natal.

It does not seem to agree with any described species, of which, however, it may be an immature form.

FAMILY AULOSTOMATEIDÆ.

FISTULARIA SERRATA, Bl.

Depth of body about 40 times in total length excluding caudal, length of head $2\frac{3}{8}$ times. Snout 8 times diameter of eye; the tube into which the head is produced being very long, broader than high near the base, the upper part marked by crenulated ridges and a patch of striæ radiating from a common centre a short distance in front of the eyes, 2 ridges start from anterior angle of orbits, first convergent then keeping a parallel direction, the lateral edge very distinctly serrated and with strong spines posteriorly. Eye elongate, ovate, nearly twice as long as high and protected anteriorly and posteriorly by prominent angles of the frontal bones, the posterior angles being serrated; the bony ridge between the orbits narrow and concave, its width $\frac{7}{8}$ the vertical diameter of the eye. Crown of head slightly convex, with crenulated striæ; nostrils close together one before the other on upper surface of snout in front of anterior angle of eye; operculum nearly twice as long as high, obtusely rounded behind; gill-openings wide, extending upwards to middle of base of pectorals; lower jaw projects beyond upper and terminates in a fleshy knob.

Dorsal 13; situated in posterior sixth of body, higher than long, the longest rays nearly equal the length of postorbital region of head. Pectorals a little longer than longitudinal diameter of eye, base slightly curved. Ventrals about $\frac{3}{4}$ diameter of eye, composed of 6 rays without a spine, widely apart from each other and their distance from base of pectorals is $\frac{1}{4}$ of their distance from base of caudal. Anal 14; situated below dorsal and resembling it, but slightly lower and not so pointed. Caudal (excluding the central filament) is a little more than $\frac{4}{5}$ length of postorbital portion of head; the central rays form an elongated filament about $\frac{3}{4}$ length of snout.

The body is much depressed, twice as broad as high and without scales. Lateral line commences on scapula, curves upwards to near median line of back and descends shortly before origin of ventrals and proceeds along middle of sides; from the vertical of origin of dorsal fin the scutes are most distinctly marked, each armed with a spine directed backwards and forming a serrated ridge along caudal peduncle.

Colour (of preserved specimen), uniform brown.

One specimen, 478 mm. in length, from Durban Museum.

FAMILY LABRIDÆ.

CORIS ANNULATA, Lacép.

No posterior canines. Depth of body $3\frac{1}{2}$ to 4 times in total length excluding caudal, length of head $3\frac{1}{2}$ to $3\frac{3}{5}$ times. Snout $3\frac{1}{2}$ to 4 times diameter of eye, which is $1\frac{1}{2}$ times to nearly twice in interorbital width and $7\frac{1}{2}$ to $9\frac{1}{2}$ times in length of head. Head long and pointed; interorbital space convex; jaws equal, upper broad and folded, lower lip pendant; maxillary reaches to vertical of about midway between point of snout and anterior nostril.

Dorsal ix 12; spines feeble and about $\frac{3}{10}$ length of head. Pectorals $\frac{3}{5}$ length of head. Ventrals $\frac{2}{3}$ length of pectorals, pointed. Anal iii 12; similar to soft dorsal. Caudal $\frac{3}{5}$ length of head, crescentic, the middle of the crescent being rather convex. Lat. 1. 111 (circa).

Colour (of preserved specimens), light brown; a light band from between eyes to point of snout, another starting from same place to a transverse band near point of snout; a light band starting from middle of cheek to lower edge of orbit, thence across to opercular border; one from posterior border of eye to scapula; one from corner of mouth across upper angle of orbit to nape and passing down to mouth on the other side; a band from angle of mouth across snout to corresponding angle on other side, with a band passing up to nape and down the other side; a band from nape down middle of snout to upper lip; a dark spot on opercular flap; a broad band across body passing through pectoral region, and about 15 narrow transverse bands on posterior half of body. Pectorals dark brown at base and diagonally across to end of superior rays; dorsal dark.

Five specimens, ranging in length from 291 mm. to 350 mm.; the largest from Durban Museum, the others from Mr. Romer Robinson, Natal.

? PSEUDOSCARUS MACULOSUS, Lacép.

Jaws whitish, no pointed teeth at angle. Depth of body equals length of head and is $3\frac{1}{5}$ times in total length excluding caudal. Snout slightly greater than interorbital width and $2\frac{3}{5}$ times diameter of eye, which is $6\frac{2}{5}$ times in length of head. Snout swollen and obtuse, upper lip thick; 2 series of scales on cheeks, the lower series composed of 6 scales on left side, 5 on right, and a single scale on lower limb of preoperculum.

Dorsal ix 10; spines weak, 1st spine shortest, remainder subequal

and about $\frac{3}{10}$ length of head; soft portion of fin posteriorly higher than spinous. Pectorals 15, nearly $\frac{3}{4}$ length of head; ventrals nearly $\frac{3}{5}$. Anal iii 9; spines weak, rays higher anteriorly and slightly longer than rays of soft dorsal. Caudal emarginate, $\frac{3}{5}$ length of head. Lat. l. 25, lat. tr. $\frac{2}{6}$.

Colour (of preserved specimen), uniform brown, outer rays of anal and ventrals green, margin of dorsal green, margin and base of anal green.

One specimen, 302 mm. in length, from Durban.

PSEUDOSCARUS NATALENSIS, n. sp.

A small horizontal pointed tooth at angle of upper jaw. Depth of body $2\frac{1}{2}$ times in total length excluding caudal, length of head nearly 3 times. Snout $3\frac{1}{3}$ times diameter of eye, which is 3 times in interorbital width and 8 times in length of head. Upper lip thin, 2 series of scales on cheeks, the lower composed of 7 scales, and a single scale on preoperculum; numerous small pores on top of head and round orbits.

Dorsal ix 10; spines weak, subequal after the 1st and about $\frac{1}{3}$ length of head; soft rays slightly shorter posteriorly. Pectorals 15, $\frac{7}{10}$ length of head. Ventrals nearly $\frac{3}{5}$ length of head. Anal iii 9; spines weak, soft portion similar to soft dorsal. Caudal (damaged in specimen). Lat. l. 27, lat. tr. $\frac{2}{7}$.

Colour (of preserved specimen), uniform dark brown, caudal peduncle light greenish brown, anal with a green band at base and border.

One specimen, 350 mm. in length, from Mr. Romer Robinson, Natal.

CHEROPS NATALENSIS, n. sp.

No posterior canines. Depth of body equals length of head and is $2\frac{7}{10}$ times in total length excluding caudal. Snout nearly 4 times diameter of eye, which is $2\frac{1}{3}$ times in interorbital width and about 8 times in length of head. Height of head nearly $\frac{4}{5}$ its length; height of preorbital equals $2\frac{3}{5}$ times diameter of eye; eyes placed high up on head; lips very thick, maxillary reaches to vertical of anterior nostril.

Dorsal xiii 7; commences above base of pectorals; spines moderately strong, 3rd spine about $\frac{3}{10}$ length of head and slightly longer than 2nd, which is $1\frac{1}{5}$ times higher than the 1st; the 4th spine is shortest, about $\frac{1}{2}$ length of 3rd, the succeeding spines

gradually lengthen to the last, which is $\frac{7}{10}$ height of 3rd spine. Soft portion of fin higher than spinous, middle rays longest and about $1\frac{2}{3}$ height of 3rd spine, margin of fin rounded. Pectorals nearly $\frac{1}{2}$ length of head. Ventrals anterior rays elongate, $\frac{3}{8}$ length of head. Anal iii 9; situated below soft dorsal and similar to it, 2nd and 3rd spines about equal in length. Caudal truncate, slightly more than $\frac{1}{2}$ length of head. Lower portion of soft dorsal, anal, and caudal covered with small scales. Lat. l. 46.

Colour (of preserved specimen), uniform dark brown, small white spots on head in front of preoperculum.

One specimen, 595 mm. in length, from Mr. Romer Robinson, Natal.

CHÆROPSODES, n. g.

Body compressed, oblong, covered with large scales; snout conical, small scales on cheeks not imbricate, opercles scaly. Four strong conical free teeth in each jaw anteriorly; posterior canines present; teeth on side of jaw confluent in an osseous ridge. Spines (xi) separate, about equal in number to rays (12). Lateral line continuous.

CHÆROPSODES PICTUS, n. sp.

(Parrot-fish.)

Teeth, 4 strong canines in front on either jaw, the inner pair on lower jaw being small, lateral teeth in a continuous cutting edge, 2 small canines at angle of upper jaw on left side. Depth of body $2\frac{3}{5}$ times in total length excluding caudal, length of head 3 times. Snout 3 times diameter of eye, which is about $\frac{1}{2}$ interorbital width and 7 times in length of head. Preorbital emarginate, its least depth about twice diameter of eye; serrature of preoperculum indistinct, minute; upper lip thick, cleft of mouth oblique, maxillary hidden by preorbital and reaches to vertical of anterior nostril; interorbital space convex.

Dorsal xi 12; commences above base of pectorals; spines short, strong, and embedded in thick skin, which is produced as a short lobe covering the end of each spine, interspinous membrane very deeply cleft; 1st spine shorter, the remainder subequal and about $\frac{1}{5}$ length of head; anterior soft rays about same height as adjacent spines, the remainder rising to $1\frac{7}{10}$ height of longest spine. Pectorals $\frac{7}{10}$ length of head, superior rays longest. Ventrals reach to origin of anal, the first 2 rays elongated, a little more than $\frac{4}{5}$ length of head.

Anal iii 12; spines covered with fleshy skin, the fin resembles the soft dorsal, but is not quite so high. Caudal (damaged in specimen). Scales on body large, smaller ones covering throat, opercles, cheeks, and top of head as far as eyes. Lat. l. 33, lat. tr. $\frac{6\frac{1}{2}}{11}$.

Colour, very brilliant, pinkish red with a tinge of lemon, yellow markings as follows: dots and short irregular lines on head and anterior dorsal part of body, on interspinous membranes of all fins except spinous dorsal, where they are black, and on margin of caudal fin; a black blotch at distal end of pectorals, and one on body between the spinous and soft portions of the dorsal fin.

Colour of preserved specimen, yellow with a reddish tinge in some places, pectorals with a black patch at distal end of upper rays, dorsal black, a black patch on back reaching from below 8th spine to middle of soft rays of dorsal fin.

One specimen, 425 mm. in length, from Durban market.

FAMILY PLEURONECTIDÆ.

SOLEA TURBYNEI, Gilch.

Depth of body $2\frac{2}{3}$ times in total length excluding caudal, length of head $4\frac{2}{3}$ times. Diameter of eye $5\frac{1}{2}$ times in length of head; upper eye in advance of lower by about half a diameter; interorbital space $\frac{2}{3}$ diameter of eye; mouth extends nearly to below centre of lower eye; a single papilla on upper lip; papillæ on left side of head extend close up to dilated left nostril, which is not fringed, there are also papillæ on lower margin of operculum and two or three at base of pectorals on inner border of opercular opening.

Dorsal 65; commences on snout above upper margin of upper eye and extends nearly to caudal fin; the longest ray is about 3 times in length of head. Right pectoral scaled at its base, about 3 times in length of head, left pectoral slightly shorter than right. Ventrals $4\frac{1}{2}$ times in length of head, the right being in advance of left and in same line; length of free portion of caudal contained about 3 times in its depth. Scales ctenoid on both sides; lat. l. 94 pierced scales.

Colour (of preserved specimen), light brown with numerous dark spots scattered over body and a few on dorsal and anal fins; right pectoral black with a light tip.

One specimen, 80 mm. in length, from Mr. Romer Robinson, Natal.

SYNAPTURA MARGINATA, Blgr.

Depth of body $2\frac{1}{3}$ times in total length excluding caudal, length of head $5\frac{1}{3}$ times. Diameter of eyes 8 times in length of head, equal to interocular width; length of mouth $3\frac{1}{4}$ times in length of head. Upper eye in advance of lower; snout projecting beyond lower jaw, mouth extending to posterior border of lower eye; snout, lips, and borders of gill-cleft with a strong fringe; a fringed dermal flap covering nostril on blind side.

Dorsal with 73 rays, anal with 55; longest $\frac{2}{3}$ length of head. Caudal obtusely acuminate. Right and left pectoral fins about equal in length, measuring $\frac{3}{10}$ length of head. Scales strongly ctenoid on coloured (right) side, cycloid on left; lateral line straight, extending over 105 scales.

Colour (of preserved specimen), right side dark brown, pectoral fin black, dorsal and anal fins with a white edge, caudal mottled light and dark brown with a light edge.

One specimen, 169 mm. in length, from Durban beach, from Mr. Romer Robinson, Natal.

PARALICHTHODES ALGOENSIS, Gilch.

Teeth, small, in 3 series on each jaw. Depth of body $2\frac{1}{3}$ times in total length excluding caudal, length of head $4\frac{1}{4}$ times. Longitudinal diameter of eye greater than vertical and a little more than twice the interocular space; lower jaw projects beyond upper by about half the vertical diameter of the eye; maxillary of left side more exposed than that of right, the latter extends backwards to below the middle of the lower eye.

Dorsal 70; originates on snout midway between its anterior extremity and the eye, not joined to caudal; 1st ray inserted slightly to left of median line, is entirely separated from the 2nd and is divided into 6 branches; 2nd and 3rd rays are joined at the base by a membrane and are also to the left of the median line; the 4th and subsequent rays are in the median line and the branchings of the rays gradually become fewer till above base of pectorals they are simple, becoming again divided in posterior fifth of fin; longest ray $2\frac{7}{10}$ times in length of head. Right pectoral fin longer than left and $1\frac{1}{2}$ times in length of head. Right ventral situated on median line and nearer head than left, which it about equals in length, the distance between origin of anterior rays of each equals $\frac{1}{3}$ the vertical diameter of the eye. Anal 50; about equal in height to dorsal and

not joined to caudal. Caudal rounded, and partly covered with scales. Lat. 1. 110.

Colour (of preserved specimen), right side light brown with minute dark specks; left side colourless.

One specimen, 161 mm. in length, from Durban beach, from Mr. Romer Robinson, Natal.

PLAGUSIA MARMORATA var. *AFRICANA*, Gilch.

Depth of body $3\frac{3}{4}$ times in total length excluding caudal, length of head $4\frac{1}{7}$ times. Eyes small, diameter slightly greater than interocular width, upper eye in advance of lower and slightly in advance of middle of head; angle of mouth lies below posterior margin of lower eye and nearer to edge of operculum than to snout; snout rounded and blunt, not pointed; a tubular nostril in front of lower eye, and a corresponding one on blind side.

Dorsal 108 (circa), originates near extremity of snout; rays short, longest about $\frac{1}{3}$ length of head. Anal 82, similar in height to dorsal. The single ventral is joined by a membrane to the anal. Caudal pointed. Two lateral lines on left side, separated by about 17 rows of scales; no lateral line on blind side. Scales ctenoid on both sides.

Colour (of preserved specimen), light brown with small dark spots.

One specimen, 201 mm. in length, from Durban beach, from Mr. Romer Robinson, Natal.

PSEUDORHOMBUS RUSSELLII, Gray.

Teeth, 10 on lower jaw on left side, 12 on right. Depth of body twice in total length excluding caudal, length of head nearly 4 times; greatest depth between anal fin and the straight portion of lateral line slightly exceeds length of head. Snout $1\frac{1}{3}$ times diameter of eye, which is nearly 6 times in length of head; front margin of orbits nearly on the same level, the interorbital ridge very narrow and naked; lower jaw prominent, cleft of mouth nearly vertical, maxillary reaches to vertical of middle of eyes, its length about $\frac{2}{5}$ length of head.

Dorsal 72; commences in front of the eye, longest rays are in last third of fin their length $\frac{2}{5}$ that of the head, each fin-ray has a series of small smooth scales and the tips of the rays slightly project beyond the membrane; distance of dorsal fin from caudal is about $\frac{1}{3}$ depth of free portion of tail. Pectorals 12, nearly twice as long as ventrals and $\frac{3}{4}$ length of head. Anal 58, similar in all

respects to dorsal fin. Caudal wedge-shaped, middle rays longest, $\frac{9}{10}$ length of head and rays covered with small scales. Scales ctenoid on left (ocular) side of body, cycloid on right; those on the cheeks and anterior part of body smaller than the scales on posterior half of body which are of moderate size. Lat. l. 80, smooth with a semi-circular curve at pectorals, length of curve slightly exceeds post-orbital length of head, and depth equals about $\frac{2}{3}$ its length.

Colour (of preserved specimen), light brown with dark spots and markings on fins and body; a large dark blotch at beginning of straight part of lateral line.

One specimen, 296 mm. in length, from Durban Museum.

FAMILY SCOPELIDÆ.

SAURUS MYOPS, Foster.

Teeth, two rows of pointed teeth on upper jaw, three rows on lower, the inner row longest; a single two-rowed band on palatines; tongue strongly toothed. Depth of body $5\frac{1}{3}$ to $5\frac{3}{5}$ times in total length excluding caudal, length of head $3\frac{2}{5}$ to 4 times. Snout equals interorbital width, obtuse and short, $\frac{2}{3}$ to $\frac{4}{5}$ diameter of eye, which is $5\frac{1}{3}$ to $5\frac{3}{5}$ times in length of head. Dorsal profile nearly horizontal; greatest width of head $\frac{3}{5}$ to $\frac{5}{8}$ its length; cleft of mouth extending to about two diameters behind orbits, lower jaw slightly longer than upper; interorbital space deeply concave, crown of head and occiput finely corrugated except the interorbital groove; 6 transverse series of scales on cheeks.

Dorsal 12-13; commences nearly midway between point of snout and adipose fin, which latter is small; highest anteriorly, the first two rays unbranched, 2nd ray longest and about $\frac{4}{5}$ length of head, base of fin about $\frac{1}{4}$ less than greatest height. Pectorals small and rounded at extremity, $\frac{1}{2}$ to $\frac{3}{5}$ length of head. Ventrals nearly as long as head and reaching to vent, the two inner rays longest. Anal 14-15; posterior rays longest and about $\frac{2}{3}$ height of longest rays of dorsal. Caudal forked. Lat. l. 52-55, lat. tr. $\frac{3\frac{1}{2}}{7}$.

Colour (of preserved specimens), pale golden, a black spot on scapula.

Eight specimens, ranging in length from 48 mm. to 121 mm., procured by the ss. *Pieter Faure*; the largest caught in shrimp trawl at St. Lucia Bay, 17-20 fms., fine sand; the others in 20 fms., fine sand, False Bluff N.E. $4\frac{3}{4}$ miles.

SAURIDA TUMBIL, Bl.

Teeth, in rows on jaws, those of inner row longest, and the surface of premaxillaries on which they are placed bevelled off so as to look outwards; teeth on mandibles more numerous than on upper jaw and placed on a surface looking outwards and upwards; a small round patch on vomer, teeth on palatines in an outer double row with a patch parallel to them of shorter teeth in three or four rows; a narrow central band of teeth on tongue. Depth of body $7\frac{1}{2}$ times in total length excluding caudal, length of head 4 times. Snout slightly obtuse equals interorbital width and the same length as diameter of eye, which is $4\frac{7}{9}$ times in length of head. Interorbital space concave, with a flat bony ridge on eyes; upper jaw slightly overlaps lower, maxillary extends to $1\frac{1}{2}$ times diameter of eye behind orbits; eyes with broad adipose lids.

Dorsal 11; situated midway between point of snout and base of caudal; 2nd and 3rd rays longest, about $\frac{1}{3}$ length of head, remainder successively shortening. Adipose dorsal situated over posterior third of anal. Pectorals $\frac{2}{3}$ length of head. Ventrals 9; $\frac{7}{10}$ length of head, the inner rays longer than outer. Anal 10; anterior rays about $\frac{1}{2}$ height of longest rays of dorsal, remainder slightly decreasing. Caudal deeply forked, $\frac{3}{4}$ length of head. Lat. l. 54, keel most developed on posterior third of body; lat. tr. $\frac{4\frac{1}{2}}{6}$.

Colour (of preserved specimen), yellowish grey above, yellow below; faint irregular dark spots on lateral line, outer superior ray of caudal with three or four dark spots and end of lobes dark.

One specimen, 173 mm. in length, from Mr. Romer Robinson, Natal.

FAMILY SCOMBRESOCIDÆ.

TYLOSURUS HIAN, C. and V.

No asperities on tongue. Body strongly compressed, its breadth less than half its greatest depth (sub-genus *Athlennes* of Jordan and Fordyce) which is $14\frac{1}{3}$ times in total length excluding caudal, length of head $3\frac{2}{5}$ times. Snout nearly $2\frac{1}{3}$ times the length of rest of head; jaws long and slender, the upper strongly arched upwards at base so that the mouth cannot be closed, in this region only small teeth are present on either jaw; eye large, nearly equals interorbital width and $2\frac{1}{4}$ times in postorbital part of head; maxillary entirely hidden by preorbital, reaches to vertical of anterior third of orbits. Top of

head from above eyes to occiput smooth with a translucent cartilage-like tissue, superciliary region scaleless with slight longitudinal striations extending forwards from between orbits; a patch of scales above cheeks, and another of minute scales in front of eyes above nostrils; nostril an elongate triangular pit containing a simple undivided papilla.

Dorsal 24; situated in posterior fifth of body, falcate; 2nd ray longest slightly exceeds postorbital length of head and nearly equals depth of body. Pectorals 15, falcate, as long as head behind middle of eye. Ventrals $\frac{3}{4}$ length of pectorals, inserted midway between arch of upper jaw and base of caudal. Anal 26, commences in advance of dorsal and of same shape but anterior rays are a little higher. Caudal deeply forked. Scales minute, especially on back. Lateral line not conspicuous and not black, does not form a keel on tail, caudal peduncle not compressed.

Colour (of preserved specimen), greenish brown above, light below; a dark lateral band from above base of pectorals to caudal, 12 or 14 indistinct cross bands or blotches on sides; minute dark specks on fins.

One specimen, 574 mm. in length, from Mr. Romer Robinson, Natal.

EXOCOETUS BAHIENSIS, Ranz.

Depth of body $6\frac{1}{3}$ times in total length excluding caudal, length of head $4\frac{1}{2}$ to $4\frac{3}{4}$ times. Snout $\frac{4}{5}$ diameter of eye, which is $1\frac{1}{5}$ to $1\frac{3}{10}$ times in interorbital width and $3\frac{3}{10}$ to $3\frac{1}{2}$ times in length of head; height of head about $\frac{3}{5}$ its length. Interorbital space rather concave; lower jaw slightly longer than upper; no barbels.

Dorsal 12-13; originates much in advance of anal; 3rd and 4th rays $\frac{1}{2}$ to $\frac{3}{5}$ length of head. Pectorals $3\frac{3}{5}$ times length of head, reaching to end of dorsal. Ventrals inserted about midway between gill-openings and base of caudal, extending to middle of anal. Anal 10, commences below anterior third of dorsal, rays not so high as those of dorsal. Caudal deeply forked.

Colour (of preserved specimens), back and sides black, sharply marked off from white belly; colouration of pectorals uniform.

Two specimens, 312 mm. and 331 mm. in length respectively, from Durban Museum.

HEMIRAMPHUS COMMERSONII, Cuv.

Teeth, tricuspid in many rows on each jaw. Depth of body 7 times in total length excluding caudal, length of head $4\frac{2}{5}$ to $4\frac{3}{4}$

times; length of beak beyond extremity of upper jaw $2\frac{1}{5}$ to $3\frac{1}{2}$ times. Snout $1\frac{1}{7}$ to $1\frac{1}{5}$ times diameter of eye, which is a little less than interorbital width and $\frac{7}{10}$ postorbital length of head. Triangular part of upper jaw formed by intermaxillaries much broader than long; height of head equals its length behind middle of eyes and is $1\frac{1}{2}$ to $1\frac{3}{4}$ times its width; no barbels; greatest width of body $\frac{2}{3}$ to $\frac{7}{10}$ its depth.

Dorsal 13; originates in last fourth of postorbital length of body excluding caudal and much in advance of anal, higher anteriorly, 2nd ray longest and $1\frac{1}{7}$ to $1\frac{1}{4}$ postorbital length of head, posterior ray slightly produced. Pectorals $\frac{2}{3}$ to $\frac{7}{10}$ length of head, reaching to front edge of eye. Ventrals $\frac{2}{5}$ length of head, inserted about midway between base of caudal and tip of pectorals. Anal 12, commences in line with about middle of dorsal, much shorter and only half the height. Caudal forked, lower lobe longer (damaged in specimen). Scales large on body, especially on anterior portion below lateral line, 5 rows between lateral line and base of dorsal, minute scales on anterior portion of dorsal and anal. Lat. l. 53.

Colour (of preserved specimens), brownish above, lighter below, a dark longitudinal band along median line (very marked on smaller specimen) from above base of pectorals to caudal; body covered with minute dark specks.

Two specimens, one 243 mm. in length from Mr. Romer Robinson, Natal; the other, 309 mm. in length, from Durban Museum.

FAMILY CLUPEIDÆ.

ENGRAULIS SETIROSTRIS, Brouss.

Teeth minute, present on both jaws and on palatines and tongue. Depth of body $3\frac{1}{5}$ times in total length excluding caudal, length of head $4\frac{1}{5}$ times. Snout about $\frac{3}{4}$ diameter of eye, which is slightly greater than interorbital width and a little more than $3\frac{1}{2}$ times in length of head. Snout obtuse, very slightly projecting beyond lower jaw; angle of mouth is beneath posterior edge of eye; maxillary much prolonged, extending to centre of anus, lower edge finely serrated, and slightly enlarged or bulging at angle of mouth. 10 gill-rakers on horizontal limb of outer branchial arch, rather widely separated from each other and the longest shorter than diameter of eye.

Dorsal i 14 (3-11), originates midway between anterior third of

eye and base of caudal; 4th ray about $\frac{9}{10}$ length of head, succeeding rays rapidly decrease giving the fin a triangular shape. Pectorals nearly equal length of head. Ventrals nearly $\frac{3}{5}$ length of head. Anal 38, commences below or slightly behind last ray of dorsal; anterior rays about $\frac{3}{4}$ height of longest rays of dorsal, succeeding 12 or 13 decrease rapidly, remainder subequal. Caudal forked, $1\frac{1}{5}$ times length of head. Abdomen compressed; the spiny scutes extending forward to gill-openings, 14 before 10 behind insertion of ventrals. Lat. l. 42.

Colour (of preserved specimen), darkish above, silvery on sides; black venules in scapular region.

One specimen, 145 mm. in length, from Mr. Romer Robinson, Natal.

ETRUMEUS MICROPUS, Schleg.

Depth of body, 6 times in total length excluding caudal, length of head $4\frac{1}{5}$ times. Snout $\frac{5}{6}$ diameter of eye, which is nearly $2\frac{9}{10}$ times in length of head and twice the interorbital width. Lower jaw slightly projecting beyond upper, maxillary reaches to vertical of anterior margin of eye.

Dorsal 18; originates nearer to point of snout than to base of caudal by about the length of the base of dorsal fin; 2nd and 3rd rays $\frac{3}{5}$ length of head, remainder rapidly shortening, upper border of fin slightly concave. Pectorals $\frac{7}{10}$ length of head, axillary scale very long. Ventrals about $\frac{1}{3}$ length of head. Anal 10, originates in posterior sixth of body, low. Caudal nearly $\frac{9}{10}$ length of head, forked. Scales 52-54. Lat. tr. 13.

Colour (of preserved specimen), dark on back above lateral line, sides and belly silvery.

One specimen, 145 mm. in length, from Mr. Romer Robinson, Natal.

CLUPEA DURBANENSIS, Regan.

Depth of body $2\frac{1}{2}$ to $2\frac{2}{3}$ times in total length excluding caudal, length of head $3\frac{1}{2}$ times. Snout equals diameter of eye, which is slightly less than interorbital width and 4 to $4\frac{2}{3}$ times in length of head. Eyes with adipose lids; snout obtuse, lower jaw closing within the upper and curving upwards into a bony point at symphysis, which is received into a corresponding notch on upper jaw; maxillary reaches to vertical of about middle of orbits; gill-rakers fine, long, and very numerous, lower branch of anterior branchial arch scarcely bent; postorbital portion of head about same length as remainder of head.

Dorsal iii 14 ; commences nearer to point of snout than to base of caudal, its entire base being midway between these points, concave superiorly ; anterior rays $\frac{3}{5}$ length of head and about $\frac{1}{5}$ higher than length of base of fin, last ray a little more than $\frac{2}{5}$ height of anterior rays. Pectorals $\frac{2}{3}$ length of head. Ventrals nearly $\frac{2}{5}$ length of head, inserted a little in advance of centre of dorsal fin. Anal iii 18-19 ; low. Caudal deeply forked, slightly longer than head. Scales regularly arranged, with crenulated or jagged edges, 43 in longitudinal 14 in transverse series, 12 scutes behind ventrals 15 anteriorly. Abdominal profile very convex.

Colour (of preserved specimens), dark above, yellowish on belly ; a dark spot on shoulder ; edge of dorsal and anal fins blackish.

Two specimens, one 223 mm. in length, from Mr. Romer Robinson, Natal ; the other, 241 mm. in length, from Durban Museum.

CLUPEA SAGAX, Jenyns.

(Sardine.)

No teeth. Depth of body 5 times in total length excluding caudal, length of head 4 times. Snout $1\frac{3}{10}$ times diameter of eye, which is $4\frac{1}{10}$ times in length of head ; interorbital width $\frac{7}{10}$ diameter of eye ; greatest height of head $\frac{2}{3}$ its length. Lower jaw slightly projecting beyond upper, maxillary reaches to vertical of middle of orbits ; operculum with conspicuous radiating striæ descending towards suboperculum ; gill-rakers fine, long and closely set, over 90 on horizontal branch of outer branchial arch.

Dorsal 19 ; originates nearer to point of snout than to base of caudal, triangular, anterior rays about $\frac{1}{2}$ length of head, remainder rapidly decreasing posteriorly. Pectorals $\frac{3}{5}$ length of head. Ventrals nearly $\frac{2}{5}$ length of head, inserted below posterior half of dorsal. Anal 16, low, its length equals postorbital region of head, last two rays slightly elongate. Caudal deeply forked, nearly $\frac{9}{10}$ length of head. Lat. l. 50 ? ; 12 abdominal scutes behind, 20 before base of ventrals.

Colour (of preserved specimen), dark above, light below ; a row of small dark spots along the side.

One specimen, 161 mm. in length, from Mr. Romer Robinson, Natal ; not in very good condition.

ALBULA CONORHYNCUS, Bl. et Schn.

Depth of body nearly $4\frac{2}{3}$ times in total length excluding caudal, length of head $3\frac{2}{3}$ times. Snout $2\frac{2}{3}$ times diameter of eye, which is

nearly $1\frac{1}{2}$ times in interorbital width and 6 times in length of head. Maxillary reaches to vertical of about $\frac{4}{5}$ the distance between point of snout and anterior margin of eye. Profile from origin of dorsal to point of snout convex.

Dorsal 17, commences a little nearer to base of caudal than to point of snout, and $\frac{3}{4}$ of its base is situated in advance of the ventrals; anterior rays nearly $\frac{3}{5}$ length of head, posterior margin of fin slightly concave. Pectorals $\frac{2}{5}$ length of head. Ventrals over $\frac{1}{2}$ length of head, inserted below last 4th of dorsal. Anal 8; about $\frac{1}{2}$ length of dorsal and $\frac{1}{2}$ height. Caudal forked, upper lobe longest and about $\frac{9}{10}$ length of head. Lat. l. 70, nearly straight; lat. tr. $\frac{9}{13}$.

Colour (of preserved specimen), silvery, darker above.

One specimen, 350 mm. in length, from Mr. Romer Robinson, Natal.

ELOPS SAURUS, L.

(Springer of Durban, Cape Salmon of Port Elizabeth.)

Depth of body $5\frac{2}{5}$ times in total length excluding caudal, length of head $3\frac{3}{5}$ times. Snout equals diameter of eye, which is $4\frac{7}{12}$ times in length of head; interorbital space $\frac{5}{6}$ diameter of eye, slightly concave and grooved; lower jaw slightly longer than upper and rather thickened at extremity, maxillary extends about $\frac{1}{2}$ diameter of eye behind orbits.

Dorsal 23, commences nearer to base of caudal than to point of snout, highest in front with a concave upper edge; 5th ray longest and $\frac{3}{4}$ length of head. Pectorals and ventrals about same length, $\frac{3}{5}$ length of head. Anal 15; similar to dorsal but rather more concave and slightly more than $\frac{3}{5}$ the height. Caudal rather longer than head, deeply lobed. Scales, 11 rows between lateral line and base of ventrals, a few rows form a sort of sheath to dorsal and anal fins. Lat. l. 100, lat. tr. $\frac{1}{2}$.

Colour (of preserved specimen), silvery.

One specimen, 196 mm. in length, from Natal.

MEGALOPS CYPRINOIDES, Brouss.

Depth of body $3\frac{1}{2}$ to $3\frac{3}{5}$ times in total length excluding caudal, length of head $3\frac{3}{5}$ to 4 times. Snout equals interorbital width and is $\frac{3}{5}$ to $\frac{4}{5}$ diameter of eye, which is $3\frac{1}{7}$ to $3\frac{1}{2}$ times in length of head. Eye with anterior and posterior adipose lids, each about $\frac{1}{4}$ diameter of orbit; lower jaw projects beyond upper, chin prominent, cleft of mouth oblique, maxillary reaches to vertical of posterior margin of orbits or slightly beyond it.

Dorsal 19, commences midway between end of snout and base of caudal, upper edge concave; anterior rays $\frac{4}{5}$ to $\frac{5}{6}$ length of head, last ray prolonged to more than length of head. Pectorals about $\frac{3}{4}$, ventrals over $\frac{1}{2}$ length of head; ventral fin inserted slightly in advance of origin of dorsal. Anal 24-26; anterior rays $\frac{3}{5}$ to $\frac{3}{4}$ length of head, posterior rays very low. Caudal deeply forked, longer than head. Lat. l. 34-36, tubes terminating posteriorly in six or eight branches. Lat. tr. $\frac{5\frac{1}{2}-6}{6\frac{1}{2}-6}$.

Colour (of preserved specimens), grey; dark above, light below.

Two specimens, 217 mm., 320 mm. in length respectively, from Mr. Romer Robinson, Natal.

CHANOS SALMONEUS, Forst.

Depth of body $3\frac{3}{4}$ times in total length excluding caudal, length of head $4\frac{2}{5}$ times. Snout $\frac{3}{5}$ diameter of eye, which is $1\frac{1}{4}$ times in inter-orbital width and $3\frac{3}{10}$ times in length of head. Eyes subcutaneous; upper surface of head flat; upper jaw overhangs lower, maxillary reaches almost to vertical of anterior margin of eye; opercle nearly twice as high as broad.

Dorsal 15, commences about midway between anterior margin of eye and base of caudal, highest in front, upper margin concave, 2 rows of scales at its base; longest rays nearly $\frac{6}{7}$ length of head. Pectorals pointed, $\frac{2}{3}$ length of head, with an elongated scaly appendage above the base. Ventrals $\frac{3}{5}$ length of head, inserted under middle of dorsal and with a long basal scale. Anal 9, small, lower margin concave, 2 rows of scales at base; anterior rays about $\frac{3}{7}$ height of longest ray of dorsal. Caudal deeply lobed, $1\frac{1}{2}$ times length of head, with two pointed laminae of scales at its centre. Lat. l. 87, lat. tr. $\frac{1\frac{1}{2}}{1\frac{2}{5}}$.

Colour (of preserved specimen), bluish on top, silvery below; dorsal dark, and both it and anal and ventrals covered with minute dark specks, pectorals dark and also with minute specks.

One specimen, 291 mm. in length, from Mr. Romer Robinson, Natal.

FAMILY SCHLERODERMI.

BALISTES MITIS, Benn.

Teeth, 8 on each jaw, slightly notched, the centre pair strongest and pointed. Depth of body slightly less than $\frac{1}{2}$ the total length excluding caudal, length of head $3\frac{1}{2}$ times. Snout 6 times diameter

of eye, which is a little more than $\frac{1}{2}$ the interorbital width and $6\frac{1}{5}$ times in length of head. A well-marked longitudinal groove in front of each eye.

Dorsal iii 30, commences above base of pectorals; 1st spine very strong and flattened laterally, its base being equal to vertical diameter of eye and its height nearly $\frac{1}{2}$ length of head. Soft dorsal nearly the same height anteriorly as longest spine of 1st dorsal, gradually curving to about $\frac{2}{5}$ the height. Pectorals nearly $\frac{2}{5}$ length of head. Anal 26; similar to soft dorsal but not so high anteriorly. Caudal oval, somewhat truncate posteriorly, nearly $\frac{3}{5}$ length of head, base fleshy and covered with small scales, peduncle very narrow. Scales rough and granulated, covering head and cheeks to point of snout; some enlarged scutes behind gill-openings; each scale of the 8 or 9 rows about the median line on posterior third of body to caudal has a rounded tubercle on it.

Colour (of preserved specimen), brown, darker above than below; a whitish ring round lower jaw at a short distance from the lip, and a more distinct white stripe running from it towards the pectorals, which it does not quite reach.

One specimen, 307 mm. in length, from Durban Museum.

MONACANTHUS SETIFER, Benn.

Depth of body nearly $1\frac{1}{2}$ times in total length excluding caudal, length of head $3\frac{1}{10}$ times. Snout nearly 3 times diameter of eye, which is a little less than interorbital width and nearly $3\frac{3}{4}$ times in length of head. Eyes placed high up at upper posterior angle of head, over the gill-openings and just in front of dorsal spine; profile of head from dorsal spine to snout slightly concave and descending at an angle of about 45° .

Dorsal i 32; spine strong, situated about midway between point of snout and origin of soft dorsal and over posterior margin of eye, rough anteriorly, and with a row of barbs on each side posteriorly pointing downwards and slightly outwards. Soft dorsal has its origin at the highest point of dorsal profile and is removed from the single spine by a space nearly equal to the length of its base; anterior rays about $\frac{2}{3}$ height of dorsal spine, decreasing posteriorly to about $\frac{1}{5}$ its height. Pectorals $\frac{1}{3}$ length of head, and situated below posterior half of eye. Ventral spine small, movable. Anal 33; similar and opposed to soft dorsal. Caudal rounded, middle rays longest, $\frac{9}{10}$ length of head. Scales small, skin with a velvety appearance.

Colour (of preserved specimen), dark brown, covered with indefinite black patches; fins light-coloured, the caudal with a dark tinge on outer half.

One specimen, 128 mm. in length, from Mr. Romer Robinson, Natal.

This fish seems to be the same as Castelnau's *M. auratus*, recorded from Algoa Bay.

MONACANTHUS PARDALIS, Rüpp.

Depth of body nearly twice in total length excluding caudal, length of head $3\frac{1}{2}$ times. Snout 4 times diameter of eye, which is $1\frac{2}{3}$ times in interorbital width and $4\frac{2}{3}$ times in length of head. Eyes placed high up and far back at upper posterior angle of head, their posterior margin vertically above axil of pectorals; snout moderately produced, upper profile slightly concave.

Dorsal i 36, commences in line with anterior margin of eye; spine strong, nearly straight, roughened but not barbed, nearly $\frac{2}{3}$ length of head and situated nearly midway between point of snout and origin of soft dorsal. Anterior rays of soft dorsal lower, the longest about $\frac{3}{4}$ length of the spine, the succeeding ones again shortening. Pectorals about $\frac{2}{3}$ length of head. Ventral spine not movable. Anal 30; anterior rays longest, about same height as longest rays of soft dorsal, decreasing posteriorly. Caudal rounded, about $\frac{1}{3}$ length of head. Scales very small, body with a velvety appearance.

Colour (of preserved specimen), dark brown, dorsal anal and pectoral fins whitish.

One specimen, 156 mm. in length, from Durban Museum.

MONACANTHUS MONOCEROS, Osb.

Depth of body $2\frac{1}{2}$ times in total length excluding caudal, length of head $3\frac{3}{5}$ times. Snout nearly $5\frac{3}{4}$ times diameter of eye, which is $\frac{1}{2}$ interorbital width and $6\frac{2}{3}$ times in length of head. Eyes situated midway between upper end of gill-openings and dorsal spine, part of gill-opening in advance of orbits; interorbital space highly convex; snout moderately produced, with its upper profile convex.

Dorsal i 47; spine of 1st dorsal weak, roughened but without barbs, about $\frac{1}{4}$ length of head and situated midway between point of snout and 2nd dorsal. Anterior soft rays of 2nd dorsal low, rising to the 6th ray, which is a little higher than the spine of 1st dorsal, succeeding two or three rays about sub-equal, the remainder gradually shortening posteriorly. Pectorals a little more than

$\frac{3}{10}$ length of head. No ventral fins. Anal 49; similar to soft dorsal but not quite so high. Caudal (damaged in specimen). Body oblong, skin with a fine velvety appearance.

Colour (of preserved specimen), uniform pale brown, dorsal anal and pectoral fins whitish.

One specimen, 318 mm. in length, from Natal.

FAMILY GYMNODONTES.

TETRODON LUNARIS, Bl. Schn., var. *SPADICEUS*, Rich.

(Channel or Golden Toby.)

Teeth in jaws about same size. Length of head about equals the distance between it and base of dorsal fin, and is 3 times in total length excluding caudal. Snout nearly twice diameter of eye, which is about 4 times in length of head and situated high up and nearer to gill-opening than to point of snout; interorbital space flat and $1\frac{3}{4}$ times diameter of eye.

Dorsal 12; situated in last third of distance between point of snout and base of caudal; anterior rays longest, a little more than $\frac{3}{5}$ length of head; length of base of fin slightly more than half its height. Pectorals 18, $\frac{3}{5}$ length of head. Anal 11, situated below dorsal, of similar height and shape but not quite so long. Caudal lunate, the lobes slightly produced, about $\frac{1}{2}$ length of head. Spines cover top of head and back from between eyes to about midway between posterior margin of orbits and origin of dorsal fin, abdomen similarly covered from throat to in line with extremity of pectorals; snout, sides, and tail spineless.

Colour (of preserved specimen), dark brown on back, sides and belly yellowish, tips of caudal dark.

One specimen, 166 mm. in length, from Mr. Romer Robinson, Natal, who states it is common in Durban Bay in deep water.

TETRODON INERMIS, Temm. and Schleg.

Teeth about same size on both jaws. Length of head equals its distance from middle of base of dorsal fin, and is $2\frac{3}{4}$ times in total length excluding caudal. Eyes large, situated high up and much nearer to gill-opening than to point of snout, longitudinal diameter about $\frac{1}{3}$ the distance from point of snout and $\frac{1}{2}$ the interorbital width, which is concave.

Dorsal 10; commences midway between gill-opening and base of caudal, its height twice the length of its base; anterior rays longest and $\frac{1}{2}$ length of head. Pectorals 17, $\frac{1}{2}$ length of head. Anal 11, commences below middle of dorsal and of similar size and shape but not quite so high. Caudal emarginate, upper lobe longer, nearly $\frac{2}{3}$ length of head. No spines proper are present, but they are represented by a number of elongate pits arranged in rows on the ventral surface not extending to vent.

Colour (of preserved specimen), greyish brown on back with many small white longitudinal spots, whitish below, fins edged with a dark shade.

One specimen, 303 mm. in length, from Durban Museum.

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